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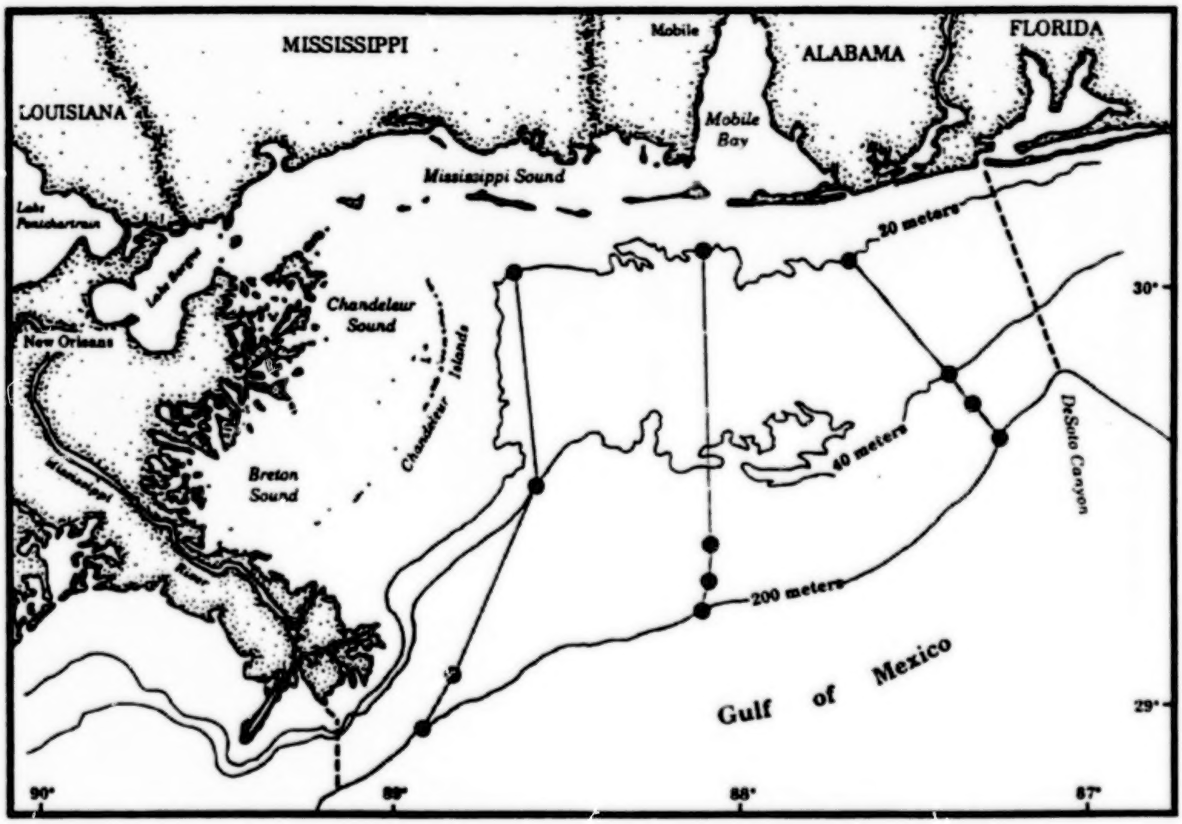
OCS Study
MMS 89-0096

Mississippi-Alabama Marine Ecosystem Study Annual Report: Year 2

Volume II: Appendices



U.S. Department of the Interior
Minerals Management Service
Gulf of Mexico OCS Region

OCS Study
MMS 89-0096

Mississippi-Alabama Marine Ecosystem Study Annual Report: Year 2

Volume II: Appendices

Editors

James M. Brooks
Charles P. Giammona

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Appendix A

SEDIMENTS

High Molecular Weight Hydrocarbons

Aromatics

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HIGH MOLECULAR WEIGHT HYDROCARBONS - AROMATICS

'+' - Peaks reported during NOAA Status and Trends Gulf Survey
'*' - Peaks may be present but less than the limit of quantification

FILE #	CRUISE	TRANSECT -STATION	NAPH (ppb)+	2-METHYL NAPH (ppb)+	1-METHYL NAPH (ppb)+	BIPHENYL (ppb)+	2,6 DIME NAPH (ppb)+	ACENAPH-THYLENE (ppb)	ACENAPH-THENE (ppb)+	2,3,4-TRI METHYL-NAPH (ppb)	FLUORENE (ppb)+	PHENAN (ppb)+	ANTHRAC (ppb)+
L4525	MMS-0	C-1	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
L4526	MMS-0	C-2	<5	<5	<5	<5	<5	6	<5	<5	<5	<5	<5
L4527	MMS-0	C-3	8	7	<5	<5	8	5	<5	<5	<5	10	<5
L4528	MMS-0	C-4	23	14	10	7	14	8	<5	<5	<5	22	<5
L4529	MMS-0	D-2	<5	<5	<5	<5	<5	5	<5	<5	<5	<5	<5
L4530	MMS-0	D-3	<5	<5	<5	<5	<5	6	<5	<5	<5	<5	<5
L4531	MMS-0	D-4	12	5	<5	<5	6	6	<5	<5	<5	6	<5
L4532	MMS-0	M-1	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
L4533	MMS-0	M-2	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
L4534	MMS-0	M-3	<5	<5	<5	<5	<5	7	<5	<5	<5	<5	<5
L4535	MMS-0	M-4	7	<5	<5	<5	8	7	<5	<5	<5	9	<5
W6233	MMS-1	C-1	<5	9	<5	5	9	<5	<5	7	<5	13	<5
W6234	MMS-1	C-2	12	17	8	10	17	<5	<5	18	7	29	<5
W6235	MMS-1	C-3	18	30	9	9	17	<5	<5	20	8	26	<5
W6236	MMS-1	C-4	33	33	16	14	22	<5	<5	19	9	40	<5
W6237	MMS-1	D-1	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
W6238	MMS-1	D-2	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
W6239	MMS-1	D-3	<5	<5	<5	<5	<5	<5	<5	5	<5	12	<5
W6240	MMS-1	D-4	8	13	6	11	23	<5	<5	33	11	46	<5
W6241	MMS-1	M-1	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
W6242	MMS-1	M-2	<5	<5	<5	<5	<5	<5	<5	<5	<5	6	<5
W6243	MMS-1	M-3	<5	11	5	6	10	<5	<5	9	5	18	<5
W6244	MMS-1	M-4	14	26	10	11	20	<5	<5	20	9	30	<5
W7734	MMS-2	C-1	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
W7735	MMS-2	C-2	26	12	7	6	21	<5	<5	<5	<5	25	6
W7736	MMS-2	C-3	<5	<5	<5	<5	<5	<5	<5	<5	<5	6	<5
W7737	MMS-2	C-4	10	9	6	<5	7	<5	<5	<5	<5	14	5
W7738	MMS-2	D-1	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
W7739	MMS-2	D-2	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
W7740	MMS-2	D-3	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
W7741	MMS-2	D-4	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
W7742	MMS-2	M-1	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
W7743	MMS-2	M-2	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
W7745	MMS-2	M-3	5	<5	<5	<5	<5	<5	<5	<5	<5	11	<5
W7746	MMS-2	M-4	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5

HIGH MOLECULAR WEIGHT HYDROCARBONS - AROMATICS

'+' - Peaks reported during NOAA Status and Trends Gulf Survey

'*' - Peaks may be present but less than the limit of quantification

FILE #	CRUISE	TRANSECT -STATION	NAPH (ppb)+	2-METHYL NAPH (ppb)+	1-METHYL NAPH (ppb)+	BIPHENYL (ppb)+	2,6 DIME NAPH (ppb)+	ACENAPHTHYLENE (ppb)	ACENAPHTHENE (ppb)+	2,3,4-TRI METHYL-NAPH (ppb)	FLUORENE (ppb)+	PHENAN (ppb)+	ANTHRAC (ppb)+
W1535	MMS-3	C-1	< 5	6	< 5	< 5	8	< 5	< 5	8	< 5	18	7
W1536	MMS-3	C-2	5	7	5	< 5	6	< 5	< 5	9	< 5	23	< 5
W1537	MMS-3	C-3	24	18	12	7	20	< 5	< 5	26	7	27	5
W1538	MMS-3	C-4	21	24	16	9	< 5	< 5	< 5	7	< 5	40	8
W1539	MMS-3	D-1	< 5	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	12	8
W1540	MMS-3	D-2	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
W1541	MMS-3	D-3	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	8	< 5
W1542	MMS-3	D-4	6	6	< 5	< 5	7	< 5	< 5	< 5	< 5	12	< 5
W1543	MMS-3	M-1	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
W1544	MMS-3	M-2	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
W1545	MMS-3	M-3	13	12	7	< 5	12	< 5	< 5	11	5	11	< 5
W1546	MMS-3	M-4	10	10	7	7	10	< 5	< 5	8	< 5	19	< 5
W2656	MMS-4	C-1	< 5	7	< 5	< 5	< 5	< 5	< 5	8	< 5	15	< 5
W2657	MMS-4	C-2	< 5	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	7	< 5
W2658	MMS-4	C-3	8	8	6	< 5	7	< 5	< 5	< 5	< 5	11	< 5
W2659	MMS-4	C-4	15	14	10	6	10	6	< 5	6	5	21	< 5
W2652	MMS-4	D-1	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
W2653	MMS-4	D-2	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
W2654	MMS-4	D-3	< 5	5	< 5	< 5	5	< 5	< 5	< 5	< 5	< 5	< 5
W2655	MMS-4	D-4	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	6	< 5
W2660	MMS-4	M-1	7	13	8	< 5	8	< 5	< 5	15	< 5	27	< 5
W2661	MMS-4	M-2	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
W2662	MMS-4	M-3	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
W2663	MMS-4	M-4	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	9	< 5

HIGH MOLECULAR WEIGHT HYDROCARBONS - AROMATICS

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'*' - Peaks may be present but less than the limit of quantification

FILE #	CRUISE	TRANSECT -STATION	1-METHYL PHENAN (ppb)+	FLUORANTH (ppb)+	PYRENE (ppb)+	BENZ(a) ANTHRAC (ppb)+	CHRYSENE (ppb)+	BENZO(b+k) FLUORANTH (ppb)	BENZO(e) PYRENE (ppb)+	BENZO(a) PYRENE (ppb)+	PERYLENE (ppb)+	INDENO-PYRENE (ppb)	DIBENZ ANTHRAC (ppb)+
L4525	MMS-0	C-1	<5	<5	<5	<5	<5	<5	<5	<5	11	<5	<5
L4526	MMS-0	C-2	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
L4527	MMS-0	C-3	< 5	11	15	9	8	10	5	7	52	8	< 5
L4528	MMS-0	C-4	< 5	20	27	17	15	21	11	15	94	14	< 5
L4529	MMS-0	D-2	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
L4530	MMS-0	D-3	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
L4531	MMS-0	D-4	< 5	6	5	< 5	< 5	5	< 5	< 5	< 5	6	< 5
L4532	MMS-0	M-1	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
L4533	MMS-0	M-2	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
L4534	MMS-0	M-3	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
L4535	MMS-0	M-4	< 5	9	14	6	6	8	< 5	5	15	9	< 5
W6233	MMS-1	C-1	9	6	8	< 5	< 5	< 5	< 5	< 5	11	< 5	< 5
W6234	MMS-1	C-2	15	13	23	5	6	13	5	8	42	8	< 5
W6235	MMS-1	C-3	15	15	25	6	7	16	8	10	28	9	< 5
W6236	MMS-1	C-4	19	33	57	15	20	40	19	19	56	20	5
W6237	MMS-1	D-1	< 5	< 5	< 5	< 5	< 5	6	< 5	< 5	< 5	< 5	< 5
W6238	MMS-1	D-2	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
W6239	MMS-1	D-3	10	6	11	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
W6240	MMS-1	D-4	14	10	19	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
W6241	MMS-1	M-1	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
W6242	MMS-1	M-2	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
W6243	MMS-1	M-3	10	7	12	< 5	< 5	< 5	< 5	< 5	5	< 5	< 5
W6244	MMS-1	M-4	14	19	36	5	6	13	7	8	14	9	< 5
W7734	MMS-2	C-1	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	6	8	< 5
W7735	MMS-2	C-2	10	12	17	< 5	< 5	13	10	6	36	47	< 5
W7736	MMS-2	C-3	< 5	5	8	< 5	< 5	8	< 5	< 5	9	< 5	< 5
W7737	MMS-2	C-4	6	20	25	10	13	18	19	14	101	40	< 5
W7738	MMS-2	D-1	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
W7739	MMS-2	D-2	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
W7740	MMS-2	D-3	< 5	7	7	< 5	< 5	7	< 5	< 5	< 5	21	< 5
W7741	MMS-2	D-4	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
W7742	MMS-2	M-1	< 5	< 5	10	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
W7743	MMS-2	M-2	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
W7745	MMS-2	M-3	< 5	12	29	< 5	6	22	9	6	13	26	< 5
W7746	MMS-2	M-4	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5

HIGH MOLECULAR WEIGHT HYDROCARBONS - AROMATICS

'+' - Peaks reported during NOAA Status and Trends Gulf Survey
'*' - Peaks may be present but less than the limit of quantification

FILE #	CRUISE	TRANSECT -STATION	1-METHYL PHENAN (ppb)+	FLUORANTH (ppb)+	PYRENE (ppb)+	BENZ(a) ANTHRAC (ppb)+	CHRYSENE (ppb)+	BENZO(b+k) FLUORANTH (ppb)	BENZO(e) PYRENE (ppb)+	BENZO(a) PYRENE (ppb)+	PERYLENE (ppb)+	INDENO-PYRENE (ppb)	DIBENZ ANTHRAC (ppb)+
W1535	MMS-3	C-1	20	<5	6	<5	<5	5	8	10	11	<5	<5
W1536	MMS-3	C-2	<5	8	12	7	9	21	10	12	74	16	<5
W1537	MMS-3	C-3	11	29	44	16	20	43	22	22	76	28	9
W1538	MMS-3	C-4	6	25	36	25	40	78	40	32	149	51	14
W1539	MMS-3	D-1	<5	<5	<5	<5	<5	7	<5	<5	<5	<5	<5
W1540	MMS-3	D-2	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
W1541	MMS-3	D-3	7	6	11	<5	6	11	<5	<5	<5	10	<5
W1542	MMS-3	D-4	<5	11	12	5	7	16	<5	<5	8	14	<5
W1543	MMS-3	M-1	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
W1544	MMS-3	M-2	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
W1545	MMS-3	M-3	8	7	9	<5	<5	10	<5	<5	11	6	<5
W1546	MMS-3	M-4	7	17	23	8	13	33	21	13	19	24	5
W2656	MMS-4	C-1	14	<5	<5	<5	<5	<5	<5	<5	5	<5	10
W2657	MMS-4	C-2	<5	9	10	7	7	28	13	9	40	17	<5
W2658	MMS-4	C-3	5	13	16	11	14	44	20	14	38	28	16
W2659	MMS-4	C-4	7	28	43	17	26	87	44	28	76	41	19
W2652	MMS-4	D-1	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
W2653	MMS-4	D-2	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
W2654	MMS-4	D-3	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	10
W2655	MMS-4	D-4	<5	8	8	5	5	18	7	6	7	14	11
W2660	MMS-4	M-1	22	6	7	<5	<5	9	<5	<5	6	<5	<5
W2661	MMS-4	M-2	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	10
W2662	MMS-4	M-3	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	10
W2663	MMS-4	M-4	<5	11	13	7	8	35	17	10	16	23	14

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HIGH MOLECULAR WEIGHT HYDROCARBONS - AROMATICS

'+' - Peaks reported during NOAA Status and Trends Gulf Survey

'*' - Peaks may be present but less than the limit of quantification

FILE #	CRUISE	TRANSECT -STATION	BENZO(ghi) PERYLENE (ppb)	TOTAL AROMATICS MEASURED (ppb)	TOTAL AROMATICS AS YR 1(+) (ppb)	2-3 RINGS MEASURED AS YR 1(+) (%)	4-5 RINGS MEASURED AS YR 1(+) (%)	RATIO 4-5 TO 2-3 RINGS AS YR 1(+)	RATIO PHENANTHRENE/ ANTHRACENE
L4525	MMS-0	C-1	<5	16	16	32.6	67.4	2.07	•
L4526	MMS-0	C-2	< 5	6	•	•	•	•	•
L4527	MMS-0	C-3	11	174	139	23.2	76.8	3.32	•
L4528	MMS-0	C-4	17	348	288	30.9	69.1	2.23	•
L4529	MMS-0	D-2	< 5	5	•	•	•	•	•
L4530	MMS-0	D-3	< 5	6	•	•	•	•	•
L4531	MMS-0	D-4	6	63	40	72.6	27.4	0.38	•
L4532	MMS-0	M-1	< 5	•	•	•	•	•	•
L4533	MMS-0	M-2	< 5	•	•	•	•	•	•
L4534	MMS-0	M-3	< 5	7	•	•	•	•	•
L4535	MMS-0	M-4	10	112	78	31.4	68.6	2.19	•
W6233	MMS-1	C-1	< 5	76	69	64.0	36.0	0.56	•
W6234	MMS-1	C-2	9	263	216	52.9	47.1	0.89	•
W6235	MMS-1	C-3	11	288	232	57.3	42.7	0.75	•
W6236	MMS-1	C-4	24	514	411	45.4	54.6	1.20	•
W6237	MMS-1	D-1	< 5	6	•	•	•	•	•
W6238	MMS-1	D-2	< 5	•	•	•	•	•	•
W6239	MMS-1	D-3	< 5	45	39	56.0	44.0	0.78	•
W6240	MMS-1	D-4	< 5	192	159	82.0	18.0	0.22	•
W6241	MMS-1	M-1	< 5	•	•	•	•	•	•
W6242	MMS-1	M-2	< 5	6	6	100.0	0.0	0.00	•
W6243	MMS-1	M-3	< 5	97	88	72.5	27.5	0.38	•
W6244	MMS-1	M-4	7	279	230	58.9	41.1	0.70	•
W7734	MMS-2	C-1	< 5	14	6	0.0	100.0	•	•
W7735	MMS-2	C-2	15	269	194	58.2	41.8	0.72	4.12
W7736	MMS-2	C-3	< 5	35	27	20.5	79.5	3.88	•
W7737	MMS-2	C-4	13	331	260	22.2	77.8	3.50	2.72
W7738	MMS-2	D-1	< 5	•	•	•	•	•	•
W7739	MMS-2	D-2	< 5	•	•	•	•	•	•
W7740	MMS-2	D-3	5	47	14	0.0	100.0	•	•
W7741	MMS-2	D-4	< 5	•	•	•	•	•	•
W7742	MMS-2	M-1	< 5	10	10	0.0	100.0	•	•
W7743	MMS-2	M-2	< 5	•	•	•	•	•	•
W7745	MMS-2	M-3	8	147	91	18.2	81.8	4.50	•
W7746	MMS-2	M-4	< 5	•	•	•	•	•	•

HIGH MOLECULAR WEIGHT HYDROCARBONS - AROMATICS

'+' - Peaks reported during NOAA Status and Trends Gulf Survey

'*' - Peaks may be present but less than the limit of quantification

FILE #	CRUISE	TRANSECT -STATION	BENZO(ghi) PERYLENE (ppb)	TOTAL AROMATICS MEASURED (ppb)	TOTAL AROMATICS AS YR 1(+) (ppb)	2-3 RINGS MEASURED AS YR 1(+) (%)	4-5 RINGS MEASURED AS YR 1(+) (%)	RATIO 4-5 TO 2-3 RINGS AS YR 1(+)	RATIO PHENANTHRENE/ ANTHRACENE
W1535	MMS-3	C-1	5	113	95	62.3	37.7	0.61	2.55
W1536	MMS-3	C-2	17	243	178	25.9	74.1	2.86	•
W1537	MMS-3	C-3	30	496	369	35.6	64.4	1.81	5.35
W1538	MMS-3	C-4	55	673	482	25.4	74.6	2.94	5.20
W1539	MMS-3	D-1	< 5	32	25	100.0	0.0	•	1.47
W1540	MMS-3	D-2	< 5	•	•	•	•	•	•
W1541	MMS-3	D-3	10	68	37	39.2	60.8	1.55	•
W1542	MMS-3	D-4	13	118	75	42.0	58.0	1.38	•
W1543	MMS-3	M-1	< 5	•	•	•	•	•	•
W1544	MMS-3	M-2	< 5	•	•	•	•	•	•
W1545	MMS-3	M-3	8	130	95	71.2	28.8	0.41	•
W1546	MMS-3	M-4	26	280	189	36.3	63.7	1.75	•
W2656	MMS-4	C-1	8	68	51	69.4	30.6	0.44	•
W2657	MMS-4	C-2	26	176	105	11.2	88.8	7.91	•
W2658	MMS-4	C-3	36	296	188	24.2	75.8	3.13	•
W2659	MMS-4	C-4	58	567	370	23.7	76.3	3.22	•
W2652	MMS-4	D-1	< 5	•	•	•	•	•	•
W2653	MMS-4	D-2	< 5	•	•	•	•	•	•
W2654	MMS-4	D-3	8	28	20	51.4	48.6	0.95	•
W2655	MMS-4	D-4	18	114	64	9.1	90.9	9.99	•
W2660	MMS-4	M-1	11	138	104	82.1	17.9	0.22	•
W2661	MMS-4	M-2	8	18	10	•	•	•	•
W2662	MMS-4	M-3	9	19	10	•	•	•	•
W2663	MMS-4	M-4	31	194	104	8.3	91.7	11.11	•

Alkanes

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HIGH MOLECULAR WEIGHT HYDROCARBONS - ALKANES

C - Possible coelution of non-hydrocarbon peak
* - Peaks may be present but less than the limit of quantification

TOTAL UNRESOLVED COMPLEX MIXTURE							NORMAL ALKANE CONCENTRATIONS											
FILE #	CRUISE	TRANSECT STATION	EOM (ppm)	UCM <C23 (ppm)	UCM >C22 (ppm)	TOT UCM (ppm)	N-C15 (ppb)	N-C16 (ppb)	N-C17 (ppb)	PRIST (ppb)	N-C18 (ppb)	PHYT (ppb)	N-C19 (ppb)	N-C20 (ppb)	N-C21 (ppb)	N-C22 (ppb)	N-C23 (ppb)	N-C24 (ppb)
L 4525	MMS-0	C-1	44.8	2	2	4	8	14	21	<5	16	7	5	12	45	<5	8	4
L 4526	MMS-0	C-2	16.0	1	2	3	10	8	< 5	11	12	5	5	13	27	< 5	< 5	< 5
L 4527	MMS-0	C-3	129.6	8	17	23	13	10	16	35	15	21	6	9	87	5	14	7
L 4528	MMS-0	C-4	134.4	15	28	42	88	44	64	68	98	21	34	42	213	18	102	15
L 4529	MMS-0	D-2	8.0	1	1	2	26	20	10	8	26	11	17	12	14	7	15	10
L 4530	MMS-0	D-3	51.2	1	2	3	11	9	9	14	13	9	7	12	19	< 5	< 5	< 5
L 4531	MMS-0	D-4	102.0	3	8	11	9	7	5	14	17	7	8	14	31	< 5	6	< 5
L 4532	MMS-0	M-1	10.4	1	1	2	< 5	< 5	9	< 5	6	< 5	45	4	18	< 5	< 5	< 5
L 4533	MMS-0	M-2	14.4	1	1	1	5	5	5	< 5	7	< 5	< 5	5	13	< 5	< 5	< 5
L 4534	MMS-0	M-3	4.8	2	4	6	22	18	9	11	31	10	16	20	43	5	9	7
L 4535	MMS-0	M-4	145.2	5	7	12	11	7	13	38	17	19	5	14	84	< 5	9	6
W 6233	MMS-1	C-1	38.1	4	1	5	157	287	388	53	185	69	78	65	15	25	11	9
W 6234	MMS-1	C-2	87.5	9	5	14	160	318	276	26	67	44	24	< 5	9	< 5	9	10
W 6235	MMS-1	C-3	70.1	7	5	12	239	459	434	55	104	85	30	22	24	23	12	15
W 6236	MMS-1	C-4	123.6	10	7	17	232	398	341	40	81	55	27	24	14	33	13	13
W 6237	MMS-1	D-1	19.7	1	1	2	7	23	13	< 5	< 5	6	< 5	< 5	< 5	5	< 5	< 5
W 6238	MMS-1	D-2	7.3	1	1	2	15	39	32	6	8	11	6	< 5	< 5	5	< 5	< 5
W 6239	MMS-1	D-3	7.7	3	1	4	51	98	124	49	53	49	21	12	6	10	< 5	10
W 6240	MMS-1	D-4	188.1	9	5	14	34	102	81	54	52	16	12	12	3	16	9	8
W 6241	MMS-1	M-1	10.4	2	1	3	35	62	50	19	14	23	13	6	7	16	8	11
W 6242	MMS-1	M-2	18.4	2	1	3	48	67	65	22	16	27	9	7	11	11	< 5	6
W 6243	MMS-1	M-3	55.0	4	2	6	224	340	304	54	68	60	22	13	15	15	5	53
W 6244	MMS-1	M-4	86.6	9	3	12	302	483	381	63	94	77	29	16	5	19	< 5	16
W7734	MMS-2	C-1	41.5	3	6	9	5	33	14	6	98	12	6	9	16	34	5	5
W7735	MMS-2	C-2	70.3	7	15	22	13	23	14	16	142	23	11	26	18	11	10	23
W7736	MMS-2	C-3	49.5	4	10	14	11	50	27	8	130	10	16	28	10	16	6	11
W7737	MMS-2	C-4	262.1	14	32	46	25	67	56	23	134	24	23	44	12	49	336	22
W7738	MMS-2	D-1	24.8	3	10	13	< 5	24	15	14	108	5	7	18	5	5	< 5	< 5
W7739	MMS-2	D-2	24.8	2	8	10	< 5	31	7	8	117	8	6	< 5	< 5	7	11	5
W7740	MMS-2	D-3	81.5	7	17	24	7	23	16	52	126	32	13	14	12	10	8	12
W7741	MMS-2	D-4	12.0	3	5	8	< 5	17	10	5	100	5	6	13	< 5	5	6	< 5
W7742	MMS-2	M-1	32.9	3	6	9	84	13	7	8	110	7	6	14	7	7	< 5	5
W7743	MMS-2	M-2	128.0	10	14	24	14	36	38	34	139	20	23	61	28	16	10	8
W7744	MMS-2	M-3	119.2	1	2	3	94	12	< 5	< 5	99	< 5	< 5	< 5	< 5	< 5	10	< 5
W7745	MMS-2	M-4	8.0	2	2	4	83	14	10	7	97	5	7	12	8	8	< 5	< 5

HIGH MOLECULAR WEIGHT HYDROCARBONS - ALKANES

C - Possible coelution of non-hydrocarbon peak
* - Peaks may be present but less than the limit of quantification

			TOTAL UNRESOLVED COMPLEX MIXTURE				NORMAL ALKANE CONCENTRATIONS											
FILE #	CRUISE	TRANSECT STATION	EOM (ppm)	UCM <C23 (ppm)	UCM >C23 (ppm)	TOT UCM (ppm)	N-C15 (ppb)	N-C16 (ppb)	N-C17 (ppb)	PRIST (ppb)	N-C18 (ppb)	PHYT (ppb)	N-C19 (ppb)	N-C20 (ppb)	N-C21 (ppb)	N-C22 (ppb)	N-C23 (ppb)	N-C24 (ppb)
W11535	MMS-3	C-1	63.3	10	9	19	17	27	29	15	13	< 5	14	9	21	21	13	14
W11536	MMS-3	C-2	68.4	14	21	35	42	44	41	22	16	7	18	19	16	31	29	33
W11537	MMS-3	C-3	179.2	19	33	52	29	22	27	20	16	14	11	11	9	27	27	27
W11538	MMS-3	C-4	135.9	23	43	66	54	48	49	25	28	12	21	19	10	57	67	47
W11539	MMS-3	D-1	31.8	3	6	8	12	9	5	< 5	6	< 5	< 5	< 5	< 5	5	< 5	10
W11892	MMS-3	D-2	16.8	2	4	6	11	11	10	< 5	< 5	6	9	5	8	6	8	11
W11541	MMS-3	D-3	56.8	9	11	21	26	10	19	11	13	< 5	8	7	< 5	15	31	15
W11542	MMS-3	D-4	98.1	10	19	29	29	35	36	10	13	< 5	12	10	10	23	42	24
W11543	MMS-3	M-1	41.8	5	12	17	17	6	19	8	5	< 5	< 5	6	5	15	18	8
W11544	MMS-3	M-2	25.2	3	5	7	12	8	6	< 5	< 5	< 5	< 5	< 5	< 5	7	12	10
W11545	MMS-3	M-3	53.2	10	13	23	44	50	46	17	29	13	24	38	61	73	68	87
W11546	MMS-3	M-4	64.0	7	14	22	25	16	25	15	15	9	12	12	11	22	36	26
W12656	MMS-4	C-1	53.6	28	7	35	33	51	61	160	C	79	< 5	21	45	7	9	10
W12657	MMS-4	C-2	81.5	17	48	65	28	22	12	7	C	30	7	19	12	11	56	33
W12658	MMS-4	C-3	104.8	25	79	104	34	27	34	25	C	16	8	10	30	13	69	45
W12659	MMS-4	C-4	130.4	34	97	131	39	43	20	8	C	5	29	29	12	14	203	58
W12652	MMS-4	D-1	33.5	8	5	13	7	C	15	28	C	38	< 5	< 5	13	< 5	< 5	6
W12653	MMS-4	D-2	46.3	5	2	7	9	6	9	8	C	< 5	10	< 5	39	< 5	10	7
W12654	MMS-4	D-3	28.0	8	12	20	18	11	< 5	< 5	C	6	14	< 5	15	5	5	9
W12655	MMS-4	D-4	100.8	10	35	45	15	16	18	50	C	< 5	8	10	33	11	26	9
W12660	MMS-4	M-1	68.0	50	26	76	41	59	78	230	C	114	< 5	12	11	9	26	11
W12661	MMS-4	M-2	38.3	9	9	19	23	22	< 5	< 5	C	< 5	8	< 5	23	5	13	7
W12662	MMS-4	M-3	59.3	10	13	23	17	14	13	16	C	13	11	9	23	7	14	11
W12663	MMS-4	M-4	97.7	21	71	92	32	22	16	< 5	C	< 5	9	16	7	13	49	20

HIGH MOLECULAR WEIGHT HYDROCARBONS - ALKANES

C - Possible coelution of non-hydrocarbon peak
* - Peaks may be present but less than the limit of quantification

NORMAL ALKANE CONCENTRATIONS											TOTAL ALKALINITES					
FILE #	CRUISE	TRANSECT STATION	N-C25 (ppb)	N-C26 (ppb)	N-C27 (ppb)	N-C28 (ppb)	N-C29 (ppb)	N-C30 (ppb)	N-C31 (ppb)	N-C32 (ppb)	<N-C23 (ppb)	>N-C23 (ppb)	N-C15 TO N-C32 (ppb)	<N-C23	CPI >N-C23	ALKANES >N-C23/ <N-C23
L 4525	MMS-0	C-1	9	5	29	13	45	20	64	5	128	202	330	1.88	3.30	1.67
L 4526	MMS-0	C-2	< 5	6	11	9	29	< 5	< 5	10	91	65	156	1.27	1.60	0.87
L 4527	MMS-0	C-3	16	30	45	9	51	5	94	11	217	282	499	3.13	3.55	1.75
L 4528	MMS-0	C-4	38	60	172	19	187	7	270	32	690	902	1592	1.98	5.78	1.50
L 4529	MMS-0	D-2	7	13	6	7	< 5	6	< 5	< 5	151	64	215	1.03	0.78	0.48
L 4530	MMS-0	D-3	< 5	< 5	18	7	29	< 5	92	5	103	151	254	1.35	11.58	1.89
L 4531	MMS-0	D-4	< 5	5	34	11	45	43	48	8	112	200	312	1.39	1.99	2.20
L 4532	MMS-0	M-1	< 5	< 5	< 5	< 5	18	< 5	78	6	82	102	184	7.20	16.00	1.24
L 4533	MMS-0.	M-2	5	6	< 5	< 5	13	< 5	64	< 5	40	88	128	1.35	13.67	2.20
L 4534	MMS-0	M-3	11	15	27	16	174	57	89	36	185	441	626	1.22	2.37	2.69
L 4535	MMS-0	M-4	10	22	38	8	56	29	129	10	208	317	525	2.97	3.23	2.10
W 6233	MMS-1	C-1	170	19	85	9	87	9	56	< 5	1322	455	1777	1.14	8.89	0.38
W 6234	MMS-1	C-2	161	< 5	83	15	123	27	50	< 5	924	478	1402	1.22	8.19	0.56
W 6235	MMS-1	C-3	226	32	128	26	139	21	17	< 5	1475	616	2091	1.20	5.55	0.46
W 6236	MMS-1	C-4	172	< 5	125	20	183	20	19	< 5	1245	565	1810	1.15	9.66	0.49
W 6237	MMS-1	D-1	180	5	13	< 5	13	< 5	6	< 5	54	217	271	0.71	42.40	4.52
W 6238	MMS-1	D-2	190	5	9	< 5	8	< 5	9	< 5	122	221	343	1.02	43.20	2.10
W 6239	MMS-1	D-3	81	12	18	< 5	20	< 5	21	< 5	473	162	635	1.17	6.36	0.43
W 6240	MMS-1	D-4	37	47	65	< 5	88	< 5	20	< 5	382	274	656	0.71	3.98	0.88
W 6241	MMS-1	M-1	121	8	23	< 5	23	5	17	< 5	245	216	461	1.07	8.00	1.06
W 6242	MMS-1	M-2	143	5	22	< 5	26	< 5	26	< 5	283	228	511	1.32	19.73	0.97
W 6243	MMS-1	M-3	132	14	46	6	55	7	7	< 5	1115	325	1440	1.30	3.06	0.32
W 6244	MMS-1	M-4	157	5	97	11	107	16	15	< 5	1469	424	1893	1.17	7.83	0.32
W7734	MMS-2	C-1	49	12	53	13	84	14	14	< 5	233	249	482	0.24	4.65	1.16
W7735	MMS-2	C-2	50	20	108	21	182	27	< 5	< 5	297	441	738	0.28	3.84	1.71
W7736	MMS-2	C-3	38	13	47	11	85	11	< 5	< 5	306	222	528	0.29	3.74	0.77
W7737	MMS-2	C-4	92	7	373	96	458	63	< 5	< 5	457	1448	1905	0.39	6.65	3.53
W7738	MMS-2	D-1	60	< 5	8	16	10	13	< 5	< 5	205	117	322	0.20	2.23	0.63
W7739	MMS-2	D-2	59	10	8	6	15	< 5	< 5	< 5	184	115	299	0.08	4.43	0.68
W7740	MMS-2	D-3	49	6	103	30	165	36	20	< 5	305	430	735	0.28	4.11	1.94
W7741	MMS-2	D-4	62	< 5	40	103	23	5	17	< 5	167	264	431	0.16	1.29	1.68
W7742	MMS-2	M-1	53	38	26	8	68	11	99	< 5	263	310	573	0.72	4.01	1.25
W7743	MMS-2	M-2	41	< 5	75	19	181	29	< 5	< 5	409	364	773	0.41	5.47	1.03
W7744	MMS-2	M-3	63	< 5	< 5	5	< 5	< 5	< 5	< 5	205	84	289	0.85	6.22	0.41
W7745	MMS-2	M-4	50	< 5	12	3	26	< 5	13	< 5	251	114	365	0.82	9.59	0.48

HIGH MOLECULAR WEIGHT HYDROCARBONS - ALKANES

C - Possible coelution of non-hydrocarbon peak
* - Peaks may be present but less than the limit of quantification

			NORMAL ALKANE CONCENTRATIONS								TOTAL ALKALINITIES					
FILE #	CRUISE	TRANSECT STATION	N-C25 (ppb)	N-C26 (ppb)	N-C27 (ppb)	N-C28 (ppb)	N-C29 (ppb)	N-C30 (ppb)	N-C31 (ppb)	N-C32 (ppb)	<N-C23 (ppb)	>N-C23 (ppb)	N-C15 TO N-C32 (ppb)	<N-C23	CPI >N-C23	ALKANES >N-C23/ <N-C23
W11535	MMS-3	C-1	42	11	85	8	73	14	55	9	164	323	487	1.14	4.86	2.16
W11536	MMS-3	C-2	126	29	227	56	359	39	218	26	256	1141	1397	1.06	5.25	5.04
W11537	MMS-3	C-3	108	30	200	55	329	25	136	32	185	966	1150	0.99	4.80	6.39
W11538	MMS-3	C-4	184	81	315	87	468	47	291	41	321	1625	1946	0.88	4.40	5.70
W11539	MMS-3	D-1	19	< 5	14	< 5	11	< 5	9	< 5	37	63	100	0.85	5.25	1.69
W11892	MMS-3	D-2	33	9	19	< 5	27	11	11	6	66	133	199	1.73	2.64	2.22
W11541	MMS-3	D-3	45	26	84	16	77	17	56	9	107	375	482	1.19	3.55	3.89
W11542	MMS-3	D-4	297	35	260	32	270	32	111	17	177	1117	1294	1.07	7.09	6.71
W11543	MMS-3	M-1	53	10	150	25	100	20	43	11	80	438	517	1.32	4.91	6.08
W11544	MMS-3	M-2	28	9	44	12	43	11	29	15	32	212	244	1.21	2.74	6.61
W11545	MMS-3	M-3	258	115	159	83	155	73	103	41	392	1139	1531	0.92	1.87	3.15
W11546	MMS-3	M-4	135	35	155	36	207	40	90	35	160	793	953	1.13	3.62	5.83
W12656	MMS-4	C-1	63	16	85	19	120	17	61	C	457	400	857	1.76	5.45	1.83
W12657	MMS-4	C-2	203	39	353	80	549	94	394	140	148	1941	2089	1.13	4.03	17.49
W12658	MMS-4	C-3	220	58	435	111	739	123	383	31	197	2214	2411	2.12	5.02	14.19
W12659	MMS-4	C-4	321	93	558	153	917	138	488	29	199	2958	3157	1.16	5.28	15.90
W12652	MMS-4	D-1	C	5	9	< 5	12	< 5	< 5	C	101	32	133	•	1.91	0.91
W12653	MMS-4	D-2	148	7	75	5	22	< 5	< 5	C	81	274	355	11.17	13.42	3.75
W12654	MMS-4	D-3	30	21	36	10	35	11	17	C	69	174	243	2.94	2.41	2.76
W12655	MMS-4	D-4	108	39	180	34	188	30	120	C	161	734	895	2.00	5.55	6.61
W12660	MMS-4	M-1	188	42	253	63	357	49	181	C	554	1170	1724	1.63	6.09	5.57
W12661	MMS-4	M-2	278	10	130	12	60	10	34	C	81	553	633	1.98	13.73	6.86
W12662	MMS-4	M-3	31	23	65	12	84	12	45	C	123	297	420	2.13	4.12	3.16
W12663	MMS-4	M-4	278	59	383	84	566	106	314	21	115	1880	1995	1.25	5.48	16.35

HIGH MOLECULAR WEIGHT HYDROCARBONS - ALKANES

C - Possible coelution of non-hydrocarbon peak
• - Peaks may be present but less than the limit of quantification

			ALKANE RATIOS			LOW-END PERCENTAGES					DATE
FILE #	CRUISE	TRANSECT STATION	PRIS/ PHYT	PRIS/ N-C17	PHYT/ N-C18	N-C17/ N-C18	N-C16-C18/ N-C19-C22	N-C16/ N-C16-C22	N-C17/ N-C16-C22	N-C18/ N-C16-C22	
L 4525	MMS-0	C-1	•	•	0.44	1.31	0.82	12.4	18.6	14.2	11/7/88
L 4526	MMS-0	C-2	2.20	•	0.42	0.00	0.44	12.3	•	18.5	11/7/88
L 4527	MMS-0	C-3	1.67	2.19	1.40	1.07	0.38	6.8	10.8	10.1	11/7/88
L 4528	MMS-0	C-4	3.24	1.06	0.21	0.65	0.67	8.6	12.5	19.1	11/7/88
L 4529	MMS-0	D-2	0.73	0.80	0.42	0.38	1.12	18.9	9.4	24.5	11/7/88
L 4530	MMS-0	D-3	1.56	1.56	0.69	0.69	0.82	13.0	13.0	18.8	11/7/88
L 4531	MMS-0	D-4	2.00	2.80	0.41	0.29	0.55	8.5	6.1	20.7	11/7/88
L 4532	MMS-0	M-1	•	•	•	1.50	0.22	0.0	11.0	7.3	11/7/88
L 4533	MMS-0	M-2	•	•	•	0.71	0.94	14.3	14.3	20.0	11/7/88
L 4534	MMS-0	M-3	1.10	1.22	0.32	0.29	0.69	12.7	6.3	21.8	11/7/88
L 4535	MMS-0	M-4	2.00	2.92	1.12	0.76	0.36	5.0	9.3	12.1	11/7/88
W 6233	MMS-1	C-1	0.77	0.14	0.37	2.10	4.70	27.5	37.2	17.7	2/22/88
W 6234	MMS-1	C-2	0.59	0.09	0.66	4.12	20.03	45.8	39.8	9.7	2/22/88
W 6235	MMS-1	C-3	0.65	0.13	0.82	4.17	10.07	41.9	39.6	9.5	2/22/88
W 6236	MMS-1	C-4	0.73	0.12	0.68	4.21	8.37	43.4	37.1	8.8	2/22/88
W 6237	MMS-1	D-1	•	•	•	•	7.20	56.1	31.7	•	2/22/88
W 6238	MMS-1	D-2	0.55	0.19	1.38	4.00	7.18	43.3	35.6	8.9	2/22/88
W 6239	MMS-1	D-3	1.00	0.40	0.92	2.34	5.61	30.2	38.3	16.4	2/22/88
W 6240	MMS-1	D-4	3.38	0.67	0.31	1.56	5.47	36.7	29.1	18.7	
W 6241	MMS-1	M-1	0.83	0.38	1.64	3.57	3.00	36.9	29.8	8.3	2/22/88
W 6242	MMS-1	M-2	0.81	0.34	1.69	4.06	3.89	36.0	34.9	8.6	2/22/88
W 6243	MMS-1	M-3	0.90	0.18	0.88	4.47	10.95	43.8	39.1	8.8	2/22/88
W 6244	MMS-1	M-4	0.82	0.17	0.82	4.05	13.88	47.0	37.1	9.2	2/22/88
W7734	MMS-2	C-1	0.50	0.43	0.12	0.14	2.23	15.7	6.7	46.7	5/7/88
W7735	MMS-2	C-2	0.70	1.14	0.16	0.10	2.71	9.4	5.7	58.0	5/7/88
W7736	MMS-2	C-3	0.80	0.30	0.08	0.21	2.96	18.1	9.7	46.9	5/7/88
W7737	MMS-2	C-4	0.96	0.41	0.18	0.42	2.01	17.4	14.5	34.8	5/7/88
W7738	MMS-2	D-1	2.80	0.93	0.05	0.14	4.20	13.2	8.2	59.3	5/7/88
W7739	MMS-2	D-2	1.00	1.14	0.07	0.06	11.92	18.5	4.2	69.6	5/7/88
W7740	MMS-2	D-3	1.63	3.25	0.25	0.13	3.37	10.7	7.5	58.9	5/7/88
W7741	MMS-2	D-4	1.00	0.50	0.05	0.10	4.70	11.0	6.5	64.9	5/7/88
W7742	MMS-2	M-1	1.14	1.14	0.06	0.06	3.82	7.9	4.3	67.1	5/7/88
W7743	MMS-2	M-2	1.70	0.89	0.14	0.27	1.66	10.6	11.1	40.8	5/7/88
W7744	MMS-2	M-3	•	•	•	•	•	10.8	•	89.2	5/7/88
W7745	MMS-2	M-4	1.40	0.70	0.05	0.10	3.46	9.0	6.4	62.2	5/7/88

HIGH MOLECULAR WEIGHT HYDROCARBONS - ALKANES

C - Possible coelution of non-hydrocarbon peak
• - Peaks may be present but less than the limit of quantification

ALKANE RATIOS						LOW-END PERCENTAGES					DATE
FILE #	CRUISE	TRANSECT STATION	PRIS/ PHYT	PRIS/ N-C17	PHYT/ N-C18	N-C17/ N-C18	N-C16-C18/ N-C19-C22	N-C16/ N-C16-C22	N-C17/ N-C16-C22	N-C18/ N-C16-C22	
W11535	MMS-3	C-1	•	0.53	•	2.19	1.08	20.5	21.6	9.8	?
W11536	MMS-3	C-2	3.14	0.54	0.44	2.53	1.20	23.8	22.0	8.7	?
W11537	MMS-3	C-3	1.39	0.74	0.88	1.66	1.11	18.0	21.6	13.1	?
W11538	MMS-3	C-4	2.13	0.50	0.42	1.78	1.16	20.7	21.2	11.9	?
W11539	MMS-3	D-1	•	•	•	0.83	4.00	36.0	20.0	24.0	?
W11892	MMS-3	D-2	•	•	•	•	0.75	22.4	20.4	•	?
W11541	MMS-3	D-3	•	0.57	•	1.48	1.39	14.2	26.2	17.7	?
W11542	MMS-3	D-4	•	0.28	•	2.84	1.52	25.5	25.8	9.1	?
W11543	MMS-3	M-1	•	0.39	•	4.22	1.16	10.9	34.5	8.2	?
W11544	MMS-3	M-2	•	•	•	•	2.15	39.0	29.3	•	?
W11545	MMS-3	M-3	1.36	0.37	0.44	1.60	0.63	15.5	14.3	8.9	?
W11546	MMS-3	M-4	1.67	0.60	0.60	1.67	0.99	13.9	22.4	13.5	?
W12656	MMS-4	C-1	2.03	2.62	•	•	1.53	27.6	33.0	•	?
W12657	MMS-4	C-2	0.23	0.58	•	•	0.69	26.5	14.5	•	?
W12658	MMS-4	C-3	1.56	0.74	•	•	1.00	22.1	27.9	•	?
W12659	MMS-4	C-4	1.60	0.40	•	•	0.75	29.3	13.6	•	?
W12652	MMS-4	D-1	0.74	1.87	•	•	1.15	•	53.6	•	?
W12653	MMS-4	D-2	•	0.89	•	•	0.31	9.4	14.1	•	?
W12654	MMS-4	D-3	•	•	•	•	0.32	24.4	•	•	?
W12655	MMS-4	D-4	•	2.78	•	•	0.55	16.7	18.8	•	?
W12660	MMS-4	M-1	2.02	2.95	•	•	4.28	34.9	46.2	•	?
W12661	MMS-4	M-2	•	•	•	•	0.61	37.9	0.0	0.0	?
W12662	MMS-4	M-3	1.23	1.23	•	•	0.54	18.2	16.9	•	?
W12663	MMS-4	M-4	•	•	•	•	0.84	26.5	19.3	•	?

Trace Metals

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TRACE METALS

Cruise	Sample	Ag (ppb)	As (ppm)	Ba (ppm)	Cd (ppb)	Cr (ppm)	Cu (ppm)	Fe (%)	Hg (ppb)	Mn (ppm)	Ni (ppm)	Pb (ppm)	Se (ppm)	Sn (ppm)	Zn (ppm)
MMS-0	I-C-1	49	12	333	49	47	8	2.20	66	346	8	15	<0.5	1.9	55
MMS-0	I-C-2	18	1	150	19	15	2	0.66	15	141	3	5	<0.5	0.4	20
MMS-0	I-C-3	92	15	895	130	84	22	4.20	83	1239	27	33	<0.5	3.3	126
MMS-0	I-C-4	118	14	890	204	84	23	4.20	96	664	31	34	0.6	2.9	124
MMS-0	I-M-1	11	3	70	13	7	1	0.32	8	65	1	2	<0.5	0.4	11
MMS-0	I-M-2	11	2	44	4	6	1	0.26	8	40	1	2	<0.5	<0.1	8
MMS-0	I-M-3	39	6	170	50	30	6	2.34	24	367	10	10	<0.5	1.4	55
MMS-0	I-M-4	56	8	525	143	76	23	3.58	70	329	31	33	0.6	4.4	71
MMS-0	I-D-1														
MMS-0	I-D-2	22	7	<18	90	13	1	1.13	28	202	4	2	<0.5	0.1	10
MMS-0	I-D-3	12	5	125	83	35	8	2.47	22	264	14	5	0.9	0.1	42
MMS-0	I-D-4	49	4	195	148	52	17	1.79	41	371	23	11	1.2	1.3	56
MMS-1	II-C-1	47	12	310	52	45	8	2.02	27	334	15	15	<0.5	1.0	48
MMS-1	II-C-2	53	10	510	70	62	11	2.80	47	481	18	24	<0.5	1.4	90
MMS-1	II-C-3	76	9	910	140	79	23	3.80	63	433	28	30	<0.5	2.2	137
MMS-1	II-C-4	112	10	770	179	86	22	4.10	81	148	39	40	0.6	2.2	154
MMS-1	II-M-1	19	1	75	4	15	1	0.35	<5	47	1	< 1	<0.5	0.1	2
MMS-1	II-M-2	<10	2	95	11	14	1	0.49	8	74	1	1	<0.5	0.1	7
MMS-1	II-M-3	<10	5	180	54	36	12	2.40	22	271	15	11	<0.5	0.9	59
MMS-1	II-M-4	99	8	510	126	72	19	3.38	85	200	43	32	0.8	1.6	79
MMS-1	II-D 1	<10	2	55	4	16	1	0.20	7	12	4	2	<0.5	<0.1	<2
MMS-1	II-D-2	<10	1	10	4	5	1	0.13	7	20	1	< 1	<0.5	0.3	<2
MMS-1	II-D-3	<10	10	50	59	23	15	2.39	16	484	9	9	1.2	0.4	25
MMS-1	II-D-4	21	3	140	162	48	10	1.64	44	302	20	9	1.1	0.8	55
MMS-2	III-C-1	12	15	337	23	36	5	1.75	66	201	11	14	<0.5	0.3	50
MMS-2	III-C-2	35	17	452	61	60	13	3.21	43	495	22	21	<0.5	1.5	97
MMS-2	III-C-3	23	6	604	50	41	10	2.27	39	168	13	18	<0.5	1.2	73
MMS-2	III-C-4	157	15	941	99	79	23	4.32	113	324	24	38	0.8	2.0	134
MMS-2	III-M-1	< 10	4	45	21	2	1	0.17	<5.	52	5	2	<0.5	<0.1	8
MMS-2	III-M-2	45	2	95	11	7	1	0.30	49	38	7	3	<0.5	0.7	11
MMS-2	III-M-3	36	4	196	48	36	6	2.51	21	325	14	12	<0.5	1.8	58
MMS-2	III-M-4	90	8	414	101	75	18	3.57	93	480	27	29	0.7	2.6	97
MMS-2	III-D-1	11	5	39	8	1	1	0.04	30	17	<1	1	<0.5	<0.1	6
MMS-2	III-D-2	< 10	3	24	11	1	1	0.14	<5.	23	<1	2	<0.5	<0.1	7
MMS-2	III-D-3	< 10	12	56	31	14	2	1.52	44	349	11	8	1.6	0.2	27
MMS-2	III-D-4	48	5	178	105	42	15	1.52	20	312	22	16	0.8	0.4	59

TRACE METALS

Cruise	Sample	Ag (ppb)	As (ppm)	Ba (ppm)	Cd (ppb)	Cr (ppm)	Cu (ppm)	Fe (%)	Hg (ppb)	Mn (ppm)	Ni (ppm)	Pb (ppm)	Se (ppm)	Sn (ppm)	Zn (ppm)
MMS-3	IV-C-1	33	5	185	16	25	3	0.90	20	180	5	8	0.2	0.6	37.8
MMS-3	IV-C-2	65	13	440	65	64	12	2.93	47	515	22	20	0.3	2.0	105.4
MMS-3	IV-C-3	80	14	720	115	78	22	3.77	70	345	25	23	0.2	2.4	124.7
MMS-3	IV-C-4	95	10	790	175	84	18	4.02	85	430	27	29	0.1	2.8	150.0
MMS-3	IV-M-1	11	2	90	43	9	1	0.38	14	40	2	1	<0.10	<0.20	18.5
MMS-3	IV-M-2	5	<1.0	65	15	12	1	0.36	6	65	3	3	<0.10	0.3	17.5
MMS-3	IV-M-3	29	6	250	50	42	6	2.45	20	340	14	13	0.2	0.9	80.0
MMS-3	IV-M-4	65	7	390	120	72	16	3.34	50	390	30	24	0.3	2.2	125.0
MMS-3	IV-D-1	12	<1.0	42	<10.	7	1	0.088	6	11	1	1	<0.10	0.6	11.4
MMS-3	IV-D-2	<10	7	31	41	10	1	0.75	11	145	3	4	<0.10	<0.20	19.8
MMS-3	IV-D-3	26	13	75	105	26	3	1.80	20	395	10	10	0.6	0.2	39.7
MMS-3	IV-D-4	31	2	165	135	48	4	1.62	39	335	21	11	0.6	1.0	65.0
MMS-4	V-C-1	55	8	155	20	26	3	0.92	25	188	1	7	<0.2	0.4	25
MMS-4	V-C-2	70	14	660	55	64	15	2.96	57	520	30	21	<0.2	1.5	86
MMS-4	V-C-3	84	16	755	99	79	25	3.92	83	487	40	29	0.3	2.1	129
MMS-4	V-C-4	104	14	790	181	88	24	4.19	104	514	42	36	0.5	2.6	134
MMS-4	V-M-1	30	12	295	28	33	6	1.31	39	214	9	9	0.4	0.5	39
MMS-4	V-M-2	21	3	85	24	11	2	0.44	22	70	3	3	<0.2	<0.2	8
MMS-4	V-M-3	34	4	150	37	37	4	1.18	21	278	7	10	<0.2	0.7	43
MMS-4	V-M-4	65	9	420	78	74	21	3.52	66	433	39	23	0.3	2.0	106
MMS-4	V-D-1	13	2	45	8	6	1	0.13	3	18	1	2	<0.2	<0.2	<5
MMS-4	V-D-2	<10	3	16	19	4	1	0.17	5	44	1	2	<0.2	<0.2	7
MMS-4	V-D-3	21	13	55	123	16	2	1.42	22	337	8	7	<0.2	<0.2	19
MMS-4	V-D-4	34	5	190	165	50	14	1.69	57	331	22	15	1.0	0.9	52

Sediment Analysis

Sediment Compilation by Station

Sediment Compilation by Station

Cruise No.	Sample No.	% Gravel	% Sand	% Silt	% Clay	Mean Phi	Sorting	Skewness	Kurtosis
MMS 1987-G1A	C1-1	0.02%	30.75%	28.60%	39.29%	3.15	2.19	2.59	7.63
MMS 1987-G1A	C1-2	0.05%	29.00%	29.82%	40.28%	3.21	2.20	2.58	7.73
MMS 1987-G1A	C1-3	0.00%	35.53%	28.71%	34.70%	3.15	2.03	2.70	8.56
MMS 1987-G1A	C1-7	0.07%	31.24%	27.20%	39.31%	3.00	2.19	2.58	7.72
MMS 1987-G1A	C1-8	0.36%	30.74%	26.82%	41.33%	2.82	2.08	2.55	8.19
MMS 1987-G1A	C1-9	0.26%	28.71%	26.88%	43.37%	2.89	2.21	2.54	7.70
MMS 1987-G1A	C1/cgs	0.16%	31.78%	31.41%	36.18%	3.18	2.06	2.61	8.17
MMS 1987-B1	C1-1	8.18%	49.65%	24.30%	14.67%	3.27	2.39	0.84	5.21
MMS 1987-B1	C1-2	0.64%	55.98%	25.09%	15.45%	3.68	1.94	2.32	8.12
MMS 1987-B1	C1-3	0.45%	57.35%	22.92%	14.91%	3.57	1.92	2.37	8.38
MMS 1987-B1	C1-4	0.12%	61.53%	20.29%	13.37%	3.57	1.80	2.74	9.75
MMS 1987-B1	C1-5	0.16%	57.48%	21.82%	16.02%	3.66	1.97	2.55	8.23
MMS 1987-B1	C1-6	0.24%	58.80%	27.74%	10.46%	4.03	2.22	1.88	5.14
MMS 1987-B1	C1/cgs	0.37%	54.73%	24.60%	16.37%	3.59	1.91	2.47	8.45
MMS 1988-B2	C1-1	0.08%	51.12%	25.82%	19.02%	4.54	2.49	1.62	3.98
MMS 1988-B2	C1-2	0.04%	50.65%	29.93%	16.52%	4.56	2.32	1.68	4.29
MMS 1988-B2	C1-3	0.03%	19.24%	73.47%	6.37%	4.61	1.55	2.23	8.26
MMS 1988-B2	C1-4	0.04%	57.33%	26.89%	12.54%	4.35	2.19	1.74	4.69
MMS 1988-B2	C1-5	0.08%	55.77%	25.75%	15.22%	4.13	2.19	2.08	6.09
MMS 1988-B2	C1-6	0.12%	51.14%	27.88%	18.11%	4.51	2.39	1.58	4.05
MMS 1988-B2	C1/cgs	0.09%	52.85%	36.15%	7.79%	4.51	2.21	1.34	3.46
MMS 1988-B3	C1-2	0.32%	58.57%	10.11%	27.61%	2.46	1.81	2.93	11.50
MMS 1988-B3	C1-3	0.04%	58.23%	11.47%	27.58%	2.58	1.82	3.06	11.78
MMS 1988-B3	C1-4	0.32%	60.92%	9.44%	25.91%	2.53	1.74	3.19	13.49
MMS 1988-B3	C1-5	1.65%	60.85%	9.75%	25.52%	2.43	1.77	2.71	11.77
MMS 1988-B3	C1-6	0.18%	57.82%	8.73%	31.31%	2.46	1.89	3.18	12.39
MMS 1988-B3	C1/cgs	0.24%	65.59%	8.26%	23.97%	2.47	1.60	3.25	14.57
MMS 1989-B4	C1-1	0.49%	77.95%	2.11%	17.60%	2.21	1.25	3.36	20.15
MMS 1989-B4	C1-2	0.56%	79.66%	2.49%	14.99%	2.30	1.31	3.31	20.00
MMS 1989-B4	C1-3	0.56%	79.59%	2.76%	14.31%	2.34	1.36	3.31	19.02
MMS 1989-B4	C1-4	0.45%	76.42%	2.46%	17.70%	2.29	1.33	3.39	19.18
MMS 1989-B4	C1-5	1.57%	76.64%	4.27%	15.47%	2.36	1.55	2.78	14.58
MMS 1989-B4	C1-6	0.82%	75.53%	3.71%	18.36%	2.22	1.33	2.81	16.00
MMS 1989-B4	C1/cgs	0.73%	77.41%	4.44%	15.91%	2.36	1.52	3.09	15.45

Sediment Compilation by Station

Cruise No.	Sample No.	% Gravel	% Sand	% Silt	% Clay	Mean Phi	Sorting	Skewness	Kurtosis
MMS 1987-G1A	C2-1	0.69%	72.44%	3.27%	23.58%	2.03	1.64	3.67	17.72
MMS 1987-G1A	C2-2	14.63%	68.54%	1.40%	15.35%	0.80	1.63	2.12	13.56
MMS 1987-G1A	C2-3	0.84%	68.99%	3.15%	26.92%	1.75	1.73	3.75	17.34
MMS 1987-G1A	C2-7	2.24%	61.40%	2.85%	33.52%	1.61	2.06	3.30	13.39
MMS 1987-G1A	C2-8	0.51%	75.69%	1.29%	22.42%	1.64	1.28	4.49	28.86
MMS 1987-G1A	C2-9	1.39%	73.70%	2.84%	21.99%	1.76	1.79	3.49	16.13
MMS 1987-G1A	C2/cgs	5.86%	70.52%	3.02%	20.49%	1.56	1.74	2.44	13.10
MMS 1987-B1	C2-1	0.31%	23.82%	63.03%	12.18%	5.90	2.55	0.06	1.90
MMS 1987-B1	C2-2	0.45%	23.02%	64.74%	10.67%	6.06	2.50	-0.02	1.85
MMS 1987-B1	C2-3	0.20%	27.42%	59.31%	11.83%	5.80	2.54	0.20	1.79
MMS 1987-B1	C2-4	0.31%	26.57%	62.72%	9.02%	5.82	2.53	0.06	1.80
MMS 1987-B1	C2-5	0.67%	26.98%	60.16%	10.14%	5.81	2.57	0.07	1.96
MMS 1987-B1	C2-6	0.20%	24.56%	52.86%	20.95%	5.97	2.61	0.28	1.83
MMS 1987-B1	C2/cgs	0.27%	26.13%	42.31%	29.62%	5.48	2.85	0.73	2.19
MMS 1988-B2	C2-1	0.06%	23.08%	46.29%	30.48%	5.80	2.68	0.63	1.95
MMS 1988-B2	C2-2	0.32%	25.13%	43.53%	30.93%	6.19	2.89	-0.04	1.68
MMS 1988-B2	C2-3	0.14%	24.75%	37.76%	37.25%	6.17	2.92	0.21	1.68
MMS 1988-B2	C2-4	0.13%	11.92%	44.08%	43.83%	7.06	2.47	-0.40	2.16
MMS 1988-B2	C2-5	0.19%	19.49%	37.50%	42.66%	6.28	2.92	0.41	1.78
MMS 1988-B2	C2-6	0.00%	19.63%	59.12%	21.15%	5.99	2.52	0.28	1.83
MMS 1988-B2	C2/cgs	0.18%	13.25%	41.20%	45.31%	7.02	2.53	-0.38	2.14
MMS 1988-B3	C2-1	0.15%	18.42%	20.47%	59.17%	3.87	2.58	1.70	4.34
MMS 1988-B3	C2-2	0.61%	20.86%	18.96%	56.74%	2.76	2.86	2.14	5.15
MMS 1988-B3	C2-3	0.04%	22.89%	20.29%	54.96%	2.96	2.81	2.18	5.20
MMS 1988-B3	C2-4	0.22%	23.03%	20.13%	55.05%	4.05	2.45	1.55	4.35
MMS 1988-B3	C2-5	0.16%	17.88%	22.89%	58.45%	2.91	2.86	2.14	5.01
MMS 1988-B3	C2-6	0.15%	21.27%	20.65%	57.36%	2.88	2.83	2.16	5.13
MMS 1988-B3	C2/cgs	0.10%	21.42%	19.55%	57.26%	2.81	2.82	2.20	5.28
MMS 1989-B4	C2-1	0.10%	20.90%	21.03%	56.61%	3.07	2.95	2.07	4.71
MMS 1989-B4	C2-2	0.05%	16.75%	25.29%	56.50%	2.97	2.77	2.11	4.89
MMS 1989-B4	C2-3	0.15%	19.78%	25.10%	53.56%	2.83	2.67	2.21	5.42
MMS 1989-B4	C2-4	0.41%	17.27%	24.76%	55.93%	3.26	2.97	1.95	4.26
MMS 1989-B4	C2-5	0.14%	18.63%	20.08%	59.75%	3.23	3.02	2.07	4.64
MMS 1989-B4	C2-6	0.15%	19.44%	18.39%	59.27%	2.79	2.82	2.15	4.97
MMS 1989-B4	C2/cgs	0.02%	15.94%	23.43%	59.55%	3.07	2.87	2.06	4.61

Sediment Compilation by Station

Cruise No.	Sample No.	% Gravel	% Sand	% Silt	% Clay	Mean Phi	Sorting	Skewness	Kurtosis
MMS 1987-G1A	C3-1	0.00%	0.30%	19.65%	80.04%	3.26	3.43	1.82	3.42
MMS 1987-G1A	C3-2	0.00%	0.28%	17.29%	82.37%	2.94	3.44	1.89	3.70
MMS 1987-G1A	C3-3	0.00%	0.26%	17.75%	81.90%	3.13	3.47	1.84	3.48
MMS 1987-G1A	C3-7	0.00%	0.27%	17.41%	82.28%	2.95	3.45	1.90	3.74
MMS 1987-G1A	C3-8	0.00%	0.30%	16.41%	83.25%	2.77	3.43	1.94	3.89
MMS 1987-G1A	C3-9	0.00%	0.27%	15.83%	83.89%	2.64	3.42	1.96	3.95
MMS 1987-G1A	C3/cgs	0.00%	0.32%	18.26%	81.34%	3.03	3.42	1.85	3.53
MMS 1987-B1	C3-1	0.03%	1.97%	56.83%	41.10%	7.26	2.03	0.27	2.32
MMS 1987-B1	C3-2	0.02%	1.96%	43.79%	54.18%	6.86	2.40	0.93	1.99
MMS 1987-B1	C3-3	0.00%	2.38%	52.12%	45.49%	7.30	2.07	0.32	2.19
MMS 1987-B1	C3-4	0.00%	1.99%	48.58%	49.34%	7.23	2.14	0.58	2.07
MMS 1987-B1	C3-5	0.03%	2.39%	46.88%	50.69%	7.31	2.18	0.40	2.12
MMS 1987-B1	C3-6	0.03%	2.11%	65.11%	32.73%	7.24	1.92	0.07	2.63
MMS 1987-B1	C3/cgs	0.00%	2.74%	45.38%	51.63%	6.50	2.50	1.02	2.12
MMS 1988-B2	C3-1	0.01%	4.35%	45.01%	50.58%	7.50	2.06	-0.23	2.56
MMS 1988-B2	C3-2	0.00%	4.67%	61.49%	33.82%	7.24	2.00	-0.26	2.70
MMS 1988-B2	C3-3	0.07%	8.46%	38.81%	52.60%	7.46	2.30	-0.61	2.83
MMS 1988-B2	C3-4	0.06%	9.85%	30.12%	59.92%	7.05	2.73	0.23	1.85
MMS 1988-B2	C3-5	0.17%	18.35%	62.48%	18.95%	6.58	2.57	-0.47	2.11
MMS 1988-B2	C3-6	0.22%	22.21%	30.32%	47.22%	6.73	2.93	-0.38	1.77
MMS 1988-B2	C3/cgs	0.45%	45.80%	15.86%	37.60%	5.50	3.35	0.31	1.45
MMS 1988-B3	C3-1	0.00%	6.85%	15.19%	77.95%	2.72	3.34	1.99	4.14
MMS 1988-B3	C3-2	0.14%	10.54%	15.22%	74.00%	2.62	3.25	2.04	4.42
MMS 1988-B3	C3-3	0.10%	31.51%	8.72%	59.58%	2.19	2.95	2.35	6.06
MMS 1988-B3	C3-4	1.45%	39.33%	7.55%	51.32%	2.20	2.71	2.49	7.07
MMS 1988-B3	C3-5	0.08%	17.60%	11.69%	70.56%	2.42	3.16	2.20	5.07
MMS 1988-B3	C3-6	0.09%	8.67%	11.68%	79.28%	2.33	3.31	2.14	4.77
MMS 1988-B3	C3/cgs 1	0.10%	3.81%	12.64%	83.43%	2.46	3.39	2.06	4.40
MMS 1988-B3	C3/cgs 2	0.13%	13.28%	13.05%	73.53%	2.71	3.28	2.06	4.44
MMS 1989-B4	C3-1	0.00%	3.23%	18.54%	78.08%	2.94	3.38	1.95	3.95
MMS 1989-B4	C3-2	0.00%	1.13%	17.51%	81.25%	3.31	3.52	1.82	3.42
MMS 1989-B4	C3-3	0.04%	1.11%	16.53%	82.19%	3.19	3.49	1.86	3.55
MMS 1989-B4	C3-4	0.00%	0.90%	17.79%	81.19%	3.28	3.50	1.83	3.44
MMS 1989-B4	C3-5	0.09%	2.82%	13.94%	82.94%	2.83	3.48	1.98	4.09
MMS 1989-B4	C3-6	0.00%	0.62%	15.71%	83.55%	3.21	3.50	1.86	3.55
MMS 1989-B4	C3/cgs	0.05%	2.08%	18.05%	79.64%	3.18	3.45	1.88	3.66

Sediment Compilation by Station

Cruise No.	Sample No.	% Gravel	% Sand	% Silt	% Clay	Mean Phi	Sorting	Skewness	Kurtosis
MMS 1987-G1A	C4-1	0.00%	0.11%	17.71%	82.18%	3.16	3.49	1.82	3.43
MMS 1987-G1A	C4-2	0.00%	0.09%	15.42%	84.45%	3.01	3.55	1.85	3.52
MMS 1987-G1A	C4-3	0.00%	0.11%	16.59%	83.24%	3.10	3.52	1.82	3.41
MMS 1987-G1A	C4-7	0.00%	0.13%	15.81%	84.00%	3.24	3.55	1.79	3.29
MMS 1987-G1A	C4-8	0.00%	0.19%	16.53%	83.24%	3.42	3.54	1.76	3.18
MMS 1987-G1A	C4-9	0.00%	0.11%	15.08%	84.73%	3.06	3.56	1.83	3.42
MMS 1987-G1A	C4/cgs	0.00%	0.11%	17.62%	82.20%	3.18	3.50	1.81	3.38
MMS 1987-B1	C4-1	0.00%	0.30%	88.28%	11.42%	7.62	1.17	-0.25	4.27
MMS 1987-B1	C4-2	1.05%	0.44%	88.18%	10.32%	7.66	1.47	-2.79	18.17
MMS 1987-B1	C4-3	0.00%	0.19%	82.52%	17.27%	7.66	1.25	0.12	3.55
MMS 1987-B1	C4-4	0.00%	0.24%	80.04%	19.72%	7.67	1.28	0.14	3.89
MMS 1987-B1	C4-5	0.00%	0.30%	42.73%	56.96%	7.48	1.94	1.04	2.12
MMS 1987-B1	C4-6	0.00%	0.23%	49.46%	50.29%	7.54	1.77	0.95	2.29
MMS 1987-B1	C4/cgs	0.00%	0.45%	41.87%	57.67%	6.67	2.35	1.33	2.20
MMS 1988-B2	C4-1	0.00%	0.26%	36.60%	63.11%	7.79	1.74	0.71	2.04
MMS 1988-B2	C4-2	0.00%	0.27%	27.99%	71.72%	5.05	3.05	1.52	2.41
MMS 1988-B2	C4-3	0.11%	0.35%	27.85%	71.68%	6.48	2.61	1.31	2.12
MMS 1988-B2	C4-4	0.00%	0.26%	29.69%	70.02%	5.75	2.84	1.46	2.26
MMS 1988-B2	C4-5	0.00%	0.41%	35.12%	64.41%	5.72	2.73	1.47	2.34
MMS 1988-B2	C4-6	1.10%	0.30%	29.14%	69.40%	6.07	2.86	1.04	2.36
MMS 1988-B2	C4/cgs	0.00%	0.27%	38.20%	61.52%	7.36	2.00	1.11	2.03
MMS 1988-B3	C4-1	0.00%	0.35%	12.73%	86.92%	2.73	3.52	1.95	3.92
MMS 1988-B3	C4-2	0.00%	0.27%	14.24%	85.43%	2.74	3.49	1.96	3.94
MMS 1988-B3	C4-3	0.00%	0.25%	12.76%	86.89%	2.68	3.51	1.96	3.95
MMS 1988-B3	C4-4	0.00%	0.22%	11.86%	87.80%	2.61	3.54	1.99	4.05
MMS 1988-B3	C4-5	0.00%	0.66%	14.36%	84.98%	2.69	3.47	1.98	4.03
MMS 1988-B3	C4-6	0.00%	0.28%	14.79%	84.87%	2.94	3.51	1.89	3.69
MMS 1988-B3	C4/cgs 1	0.00%	0.40%	13.16%	86.41%	2.71	3.51	1.97	3.98
MMS 1988-B3	C4/cgs 2	0.00%	0.20%	13.62%	86.04%	2.69	3.51	1.97	3.98
MMS 1989-B4	C4-1	0.00%	0.14%	14.68%	85.17%	2.70	3.47	1.95	3.90
MMS 1989-B4	C4-2	0.00%	0.21%	13.50%	86.29%	2.71	3.50	1.94	3.86
MMS 1989-B4	C4-3	0.00%	0.10%	14.67%	85.23%	2.57	3.45	1.99	4.09
MMS 1989-B4	C4-4	0.00%	0.11%	13.42%	86.46%	2.36	3.38	2.08	4.44
MMS 1989-B4	C4-5	0.17%	0.12%	15.39%	84.32%	2.80	3.49	1.90	3.75
MMS 1989-B4	C4-6	0.00%	0.23%	15.62%	84.16%	2.84	3.49	1.90	3.73
MMS 1989-B4	C4/cgs	0.00%	0.13%	16.97%	82.90%	2.79	3.43	1.93	3.84

Sediment Compilation by Station

Cruise No.	Sample No.	% Gravel	% Sand	% Silt	% Clay	Mean Phi	Sorting	Skewness	Kurtosis
MMS 1987-G1A	D1-1	0.02%	93.45%	0.46%	6.06%	1.93	0.64	2.26	21.21
MMS 1987-G1A	D1-2	0.31%	91.28%	0.99%	7.40%	1.96	1.13	4.43	30.53
MMS 1987-B1	D1-1	0.59%	97.76%	0.12%	0.93%	1.80	0.67	1.41	29.17
MMS 1987-B1	D1-2	0.15%	97.98%	0.27%	1.11%	1.82	0.63	3.45	43.49
MMS 1987-B1	D1-3	0.39%	97.85%	0.19%	1.19%	1.82	0.72	2.79	35.94
MMS 1987-B1	D1-4	0.14%	98.44%	0.16%	1.09%	1.80	0.66	3.22	40.78
MMS 1987-B1	D1-5	0.13%	98.31%	0.12%	1.07%	1.76	0.63	3.16	41.69
MMS 1987-B1	D1-6	0.07%	97.88%	0.61%	1.42%	1.97	0.81	4.68	45.32
MMS 1987-B1	D1/cgs	0.11%	98.34%	0.22%	1.25%	1.94	0.65	2.62	33.20
MMS 1988-B2	D1-1	1.60%	96.54%	0.15%	1.67%	1.73	0.78	0.37	20.92
MMS 1988-B2	D1-2	1.29%	96.54%	0.12%	2.01%	1.60	0.72	0.80	26.95
MMS 1988-B2	D1-3	1.12%	97.14%	0.13%	1.59%	1.64	0.74	0.12	16.70
MMS 1988-B2	D1-4	1.09%	97.23%	0.11%	1.54%	1.67	0.77	0.86	23.62
MMS 1988-B2	D1-5	0.42%	97.79%	0.17%	1.54%	1.61	0.56	1.16	27.60
MMS 1988-B2	D1-6	0.27%	97.87%	0.06%	1.76%	1.76	0.65	0.80	17.29
MMS 1988-B2	D1-8	0.14%	98.58%	0.14%	1.12%	1.65	0.52	3.49	59.39
MMS 1988-B3	D1-1	0.04%	90.66%	0.26%	8.97%	1.66	0.90	6.16	58.64
MMS 1988-B3	D1-2	0.10%	91.57%	0.22%	8.02%	1.63	0.87	5.87	58.40
MMS 1988-B3	D1-3	0.29%	90.07%	0.28%	9.26%	1.62	0.88	5.01	49.58
MMS 1988-B3	D1-4	0.06%	92.97%	0.25%	6.63%	1.66	0.82	5.67	59.29
MMS 1988-B3	D1-5	0.26%	91.72%	0.21%	7.79%	1.63	0.86	4.80	50.26
MMS 1988-B3	D1-6	0.60%	91.25%	0.28%	7.78%	1.66	0.85	4.47	47.35
MMS 1988-B3	D1/cgs 1	0.31%	92.42%	0.28%	6.92%	1.71	0.89	5.27	51.73
MMS 1988-B3	D1/cgs 2	0.71%	91.53%	0.20%	7.44%	1.69	0.87	4.79	50.63
MMS 1989-B4	D1-1	0.15%	91.25%	0.76%	7.83%	1.94	0.74	3.83	40.40
MMS 1989-B4	D1-2	0.00%	92.13%	0.56%	7.20%	1.91	0.73	4.10	40.08
MMS 1989-B4	D1-3	0.04%	91.42%	0.29%	8.18%	1.94	0.75	4.68	46.95
MMS 1989-B4	D1-4	0.10%	92.85%	0.55%	6.48%	1.98	0.80	4.59	45.90
MMS 1989-B4	D1-5	0.00%	92.97%	0.48%	6.47%	1.94	0.68	3.52	34.01
MMS 1989-B4	D1-6	0.00%	91.02%	0.67%	8.18%	1.84	0.71	3.59	34.28
MMS 1989-B4	D1/cgs	0.03%	93.29%	0.39%	6.18%	1.94	0.68	3.83	42.65

Sediment Compilation by Station

Cruise No.	Sample No.	% Gravel	% Sand	% Silt	% Clay	Mean Phi	Sorting	Skewness	Kurtosis
MMS 1987-G1A	D2-2	43.19%	47.43%	0.97%	8.33%	-0.42	1.28	2.09	12.66
MMS 1987-B1	D2-1	0.49%	97.39%	0.38%	1.11%	1.51	0.69	3.92	56.89
MMS 1987-B1	D2-2	0.31%	97.56%	0.36%	1.11%	1.53	0.56	4.45	73.04
MMS 1987-B1	D2-3	0.43%	95.20%	0.22%	1.16%	1.44	0.53	1.23	35.90
MMS 1987-B1	D2-4	0.15%	96.99%	0.20%	1.16%	1.51	0.52	5.41	93.02
MMS 1987-B1	D2-5	0.18%	97.35%	0.15%	1.25%	1.51	0.59	6.37	100.76
MMS 1987-B1	D2-6	0.13%	97.69%	0.17%	1.33%	1.52	0.56	5.73	92.01
MMS 1987-B1	D2/cgs	0.34%	97.95%	0.28%	1.29%	1.64	0.66	3.84	52.00
MMS 1988-B2	D2-1	3.02%	95.35%	0.20%	1.37%	1.44	0.77	0.90	34.28
MMS 1988-B2	D2-2	0.59%	97.69%	0.20%	1.47%	1.47	0.50	0.49	42.15
MMS 1988-B2	D2-3	0.23%	97.87%	0.23%	1.62%	1.52	0.49	3.01	56.96
MMS 1988-B2	D2-4	0.25%	97.88%	0.28%	1.59%	1.66	0.54	1.51	39.68
MMS 1988-B2	D2-5	0.48%	97.71%	0.24%	1.52%	1.51	0.51	2.50	58.40
MMS 1988-B2	D2-6	0.43%	97.85%	0.08%	1.54%	1.47	0.60	1.32	43.87
MMS 1988-B2	D2/cgs	0.33%	97.98%	0.17%	1.47%	1.50	0.57	5.76	99.04
MMS 1988-B3	D2-1	2.75%	83.39%	0.56%	13.30%	0.96	0.86	0.38	10.89
MMS 1988-B3	D2-2	2.81%	82.97%	0.75%	13.41%	0.87	0.99	1.68	18.16
MMS 1988-B3	D2-3	3.63%	83.48%	0.76%	12.01%	0.94	1.10	2.41	23.03
MMS 1988-B3	D2-4	6.31%	77.20%	1.28%	15.10%	0.80	1.29	2.59	20.28
MMS 1988-B3	D2-5	5.22%	78.49%	1.17%	15.05%	0.81	1.11	1.85	17.48
MMS 1988-B3	D2-6	1.88%	84.32%	0.58%	13.19%	0.99	0.82	0.25	10.15
MMS 1988-B3	D2/cgs 1	8.04%	79.40%	1.17%	11.29%	0.79	1.34	2.34	18.18
MMS 1988-B3	D2/cgs 2	7.95%	82.64%	0.74%	8.60%	0.83	1.24	1.92	18.24
MMS 1989-B4	D2-1	1.88%	88.76%	1.40%	7.88%	1.44	1.34	4.36	30.57
MMS 1989-B4	D2-2	0.73%	89.00%	0.42%	9.76%	1.34	0.85	4.36	46.22
MMS 1989-B4	D2-3	0.03%	89.85%	0.69%	9.29%	1.49	1.08	6.24	50.32
MMS 1989-B4	D2-4	0.61%	92.69%	0.39%	6.27%	1.42	0.94	5.89	57.08
MMS 1989-B4	D2-5	0.51%	89.65%	0.48%	9.32%	1.39	0.66	3.58	47.59
MMS 1989-B4	D2-6	0.87%	88.91%	0.62%	9.51%	1.45	1.15	5.05	37.95
MMS 1989-B4	D2/cgs	0.99%	90.96%	0.27%	7.73%	1.38	0.79	3.94	47.87

Sediment Compilation by Station

Cruise No.	Sample No.	% Gravel	% Sand	% Silt	% Clay	Mean Phi	Sorting	Skewness	Kurtosis
MMS 1987-G1A	D3-1	0.01%	25.63%	37.28%	35.15%	3.43	2.22	2.28	6.17
MMS 1987-G1A	D3-2	2.35%	41.60%	30.43%	24.92%	3.18	2.32	1.56	5.50
MMS 1987-G1A	D3-3	0.24%	29.66%	42.11%	27.29%	3.74	2.25	1.86	5.46
MMS 1987-G1A	D3-7	0.13%	28.04%	44.72%	25.83%	3.96	2.17	1.96	5.50
MMS 1987-G1A	D3-8	0.62%	37.73%	36.23%	24.16%	3.56	2.22	1.83	5.78
MMS 1987-G1A	D3-9	0.48%	39.93%	36.55%	20.92%	3.51	2.04	1.97	6.65
MMS 1987-G1A	D3/cgs	0.98%	40.89%	33.26%	23.91%	3.46	2.30	1.69	5.24
MMS 1987-B1	D3-1	20.60%	67.11%	5.58%	6.54%	0.42	2.42	2.60	9.90
MMS 1987-B1	D3-2	15.92%	63.47%	10.75%	9.81%	1.12	2.88	1.84	5.72
MMS 1987-B1	D3-3	18.52%	64.61%	8.15%	8.64%	8.57	7.95	-1.09	1.23
MMS 1987-B1	D3-4	31.33%	56.99%	5.36%	6.26%	0.16	2.44	2.70	10.32
MMS 1987-B1	D3-5	15.94%	70.71%	6.08%	7.18%	0.69	2.37	2.40	9.24
MMS 1987-B1	D3-6	11.86%	74.80%	6.18%	7.07%	0.71	2.31	2.48	9.69
MMS 1987-B1	D3/cgs	15.51%	74.21%	6.02%	4.15%	0.51	2.19	2.61	10.41
MMS 1988-B2	D3-1	31.94%	59.07%	3.82%	5.11%	0.12	2.29	2.81	11.67
MMS 1988-B2	D3-2	11.76%	72.44%	7.70%	8.98%	1.03	2.67	2.14	7.32
MMS 1988-B2	D3-3	15.66%	65.93%	9.92%	8.46%	1.07	2.72	1.88	6.11
MMS 1988-B2	D3-4	18.88%	69.14%	6.79%	5.04%	0.68	2.43	2.22	8.13
MMS 1988-B2	D3-5	12.58%	73.37%	6.88%	7.11%	0.98	2.55	2.18	7.76
MMS 1988-B2	D3-6	0.18%	76.97%	15.14%	7.65%	2.42	2.29	2.29	6.63
MMS 1988-B2	D3/cgs	12.69%	73.30%	8.21%	5.70%	1.01	2.72	2.02	6.54
MMS 1988-B3	D3-1	14.15%	51.56%	5.60%	28.06%	0.40	1.90	2.64	11.49
MMS 1988-B3	D3-2	11.45%	28.79%	8.54%	51.12%	0.67	2.25	2.47	8.68
MMS 1988-B3	D3-3	22.09%	55.97%	1.53%	20.27%	-0.02	1.45	3.01	18.81
MMS 1988-B3	D3-4	21.16%	58.71%	4.49%	15.40%	0.29	2.09	2.73	11.79
MMS 1988-B3	D3-5	21.70%	55.91%	3.24%	19.07%	0.15	1.98	3.18	15.09
MMS 1988-B3	D3-6	21.08%	50.81%	7.30%	20.58%	1.68	3.24	1.06	3.35
MMS 1988-B3	D3/cgs 1	21.89%	58.40%	5.44%	13.57%	0.81	3.01	2.18	6.95
MMS 1988-B3	D3/cgs 2	20.17%	60.46%	6.59%	12.52%	1.17	3.38	1.83	5.16
MMS 1989-B4	D3-1	19.08%	55.91%	7.04%	17.36%	0.84	2.66	2.11	7.30
MMS 1989-B4	D3-2	8.25%	61.49%	10.39%	18.63%	1.41	2.48	1.86	6.58
MMS 1989-B4	D3-3	8.34%	61.66%	8.14%	21.46%	1.29	2.41	2.14	7.98
MMS 1989-B4	D3-4	13.44%	54.63%	7.75%	23.44%	1.15	2.55	2.09	7.49
MMS 1989-B4	D3-5	8.86%	57.28%	11.00%	19.41%	1.45	2.54	1.74	5.96
MMS 1989-B4	D3-6	17.07%	47.46%	12.33%	21.66%	1.29	2.83	1.70	5.36
MMS 1989-B4	D3/cgs	18.18%	57.94%	6.62%	17.02%	0.59	2.54	2.47	8.92

Sediment Compilation by Station

Cruise No.	Sample No.	% Gravel	% Sand	% Silt	% Clay	Mean Phi	Sorting	Skewness	Kurtosis
MMS 1987-G1A	D4-1	0.09%	4.73%	39.39%	55.69%	3.94	2.90	1.76	3.55
MMS 1987-G1A	D4-2	0.00%	4.42%	35.63%	59.71%	3.71	2.92	1.84	3.75
MMS 1987-G1A	D4-3	0.16%	4.70%	34.65%	60.18%	4.12	2.95	1.66	3.15
MMS 1987-G1A	D4-7	0.00%	4.35%	40.35%	55.10%	4.36	2.85	1.70	3.19
MMS 1987-G1A	D4-8	0.03%	3.94%	32.91%	62.86%	3.53	2.94	1.87	3.78
MMS 1987-G1A	D4-9	0.00%	4.05%	38.25%	57.38%	4.27	2.87	1.73	3.25
MMS 1987-G1A	D4/cgs	0.00%	5.23%	36.32%	58.45%	4.10	2.91	1.71	3.28
MMS 1987-B1	D4-1	0.15%	5.93%	82.27%	11.44%	6.39	1.88	0.00	3.18
MMS 1987-B1	D4-2	0.09%	5.93%	80.09%	13.65%	6.39	1.93	0.16	2.79
MMS 1987-B1	D4-3	0.06%	6.00%	81.55%	12.17%	6.45	1.87	0.02	2.92
MMS 1987-B1	D4-4	0.02%	6.73%	73.99%	18.98%	6.34	2.09	0.35	2.46
MMS 1987-B1	D4-5	0.05%	11.35%	74.08%	12.65%	6.10	2.08	0.27	2.39
MMS 1987-B1	D4-6	0.04%	6.45%	79.28%	13.84%	6.42	1.94	0.13	2.68
MMS 1987-B1	D4/cgs	0.00%	11.15%	53.07%	35.19%	5.36	2.58	1.20	2.71
MMS 1988-B2	D4-1	0.01%	4.73%	71.01%	24.15%	6.61	2.05	0.33	2.45
MMS 1988-B2	D4-2	0.05%	4.49%	66.95%	28.47%	6.63	2.10	0.41	2.43
MMS 1988-B2	D4-3	0.00%	6.38%	76.45%	17.11%	6.49	2.03	0.06	2.71
MMS 1988-B2	D4-4	0.00%	6.11%	78.37%	15.41%	6.33	1.93	0.32	2.49
MMS 1988-B2	D4-5	0.03%	5.39%	72.08%	22.45%	6.50	2.10	0.31	2.47
MMS 1988-B2	D4-6	1.40%	4.41%	83.28%	10.83%	6.53	1.96	-1.06	5.71
MMS 1988-B2	D4/cgs	0.03%	5.43%	84.05%	10.32%	6.69	1.81	-0.33	3.18
MMS 1988-B3	D4-1	0.00%	6.47%	31.52%	58.96%	3.93	3.03	1.74	3.30
MMS 1988-B3	D4-2	0.00%	10.27%	24.72%	58.02%	3.47	3.11	1.85	3.64
MMS 1988-B3	D4-3	0.00%	8.62%	24.00%	61.02%	3.48	3.15	1.84	3.60
MMS 1988-B3	D4-4	0.00%	5.03%	29.24%	64.74%	3.85	3.00	1.80	3.50
MMS 1988-B3	D4-5	0.00%	5.85%	31.57%	61.12%	3.89	3.03	1.78	3.39
MMS 1988-B3	D4-6	0.00%	8.38%	30.73%	57.69%	4.01	3.01	1.75	3.31
MMS 1988-B3	D4/cgs 1	0.00%	8.73%	29.69%	55.47%	3.91	3.04	1.77	3.36
MMS 1988-B3	D4/cgs 2	0.00%	8.03%	29.31%	57.05%	3.93	3.06	1.75	3.29
MMS 1989-B4	D4-1	0.00%	4.94%	32.57%	60.29%	3.70	3.02	1.86	3.71
MMS 1989-B4	D4-2	0.02%	5.35%	33.29%	58.53%	3.72	2.98	1.85	3.68
MMS 1989-B4	D4-3	0.00%	3.65%	30.27%	65.30%	3.45	3.08	1.90	3.86
MMS 1989-B4	D4-4	0.06%	2.76%	28.15%	68.68%	3.13	3.05	1.95	4.06
MMS 1989-B4	D4-5	0.00%	3.07%	26.35%	70.08%	3.29	3.17	1.91	3.84
MMS 1989-B4	D4-6	0.00%	3.44%	43.61%	52.15%	3.41	2.80	1.78	3.36
MMS 1989-B4	D4/cgs	0.00%	6.37%	28.97%	60.90%	3.59	3.07	1.85	3.64

Sediment Compilation by Station

Cruise No.	Sample No.	% Gravel	% Sand	% Silt	% Clay	Mean Phi	Sorting	Skewness	Kurtosis
MMS 1987-G1A	M1-1	0.13%	82.10%	0.45%	17.30%	2.14	1.08	4.68	34.15
MMS 1987-G1A	M1-2	0.15%	86.96%	0.90%	11.99%	2.31	0.90	4.29	37.10
MMS 1987-G1A	M1-3	0.02%	92.04%	0.33%	7.58%	2.35	0.69	3.65	38.13
MMS 1987-G1A	M1-4	0.38%	90.54%	0.44%	8.59%	2.29	0.82	2.68	29.37
MMS 1987-G1A	M1-7	0.39%	89.03%	0.72%	9.75%	2.32	0.86	2.91	29.33
MMS 1987-G1A	M1-8	1.34%	86.97%	0.61%	11.02%	2.53	1.84	3.23	15.14
MMS 1987-G1A	M1/cgs	1.30%	89.81%	0.81%	8.07%	2.25	0.93	1.69	24.14
MMS 1987-B1	M1-1	0.16%	97.62%	0.27%	1.49%	2.09	0.63	1.83	26.09
MMS 1987-B1	M1-2	0.21%	96.83%	0.40%	1.93%	2.19	0.77	3.55	40.96
MMS 1987-B1	M1-3	0.23%	97.19%	0.33%	2.02%	2.15	0.74	3.27	40.49
MMS 1987-B1	M1-4	1.87%	93.48%	0.92%	2.80%	2.18	1.08	1.44	19.21
MMS 1987-B1	M1-5	17.14%	77.37%	0.76%	2.68%	1.44	1.80	0.30	5.86
MMS 1987-B1	M1-6	0.29%	95.11%	0.50%	2.53%	2.24	0.84	4.38	45.66
MMS 1988-B2	M1-1	7.35%	90.14%	0.23%	2.26%	1.48	1.23	-0.21	8.46
MMS 1988-B2	M1-2	12.31%	81.17%	1.06%	5.37%	1.40	1.70	1.13	9.30
MMS 1988-B2	M1-3	10.80%	87.55%	0.08%	1.56%	0.99	1.17	-0.30	7.35
MMS 1988-B2	M1-4	9.78%	87.81%	0.20%	2.16%	1.35	1.24	-0.01	10.39
MMS 1988-B2	M1-5	4.11%	93.41%	0.28%	2.16%	1.60	1.01	-0.61	9.09
MMS 1988-B2	M1-6	6.74%	91.58%	0.10%	1.54%	1.42	1.07	-0.10	14.18
MMS 1988-B2	M1/cgs	5.17%	92.36%	0.38%	2.03%	0.01	1.91	1.94	7.06
MMS 1988-B3	M1-1	0.47%	86.56%	1.32%	11.64%	1.91	0.84	2.69	23.33
MMS 1988-B3	M1-2	0.17%	84.91%	1.35%	13.44%	1.95	1.19	4.79	31.77
MMS 1988-B3	M1-3	0.21%	77.58%	2.38%	19.65%	1.99	1.50	4.28	22.36
MMS 1988-B3	M1-4	0.01%	81.02%	2.34%	16.39%	2.06	1.38	3.94	22.18
MMS 1988-B3	M1-5	0.05%	76.08%	2.27%	21.57%	2.05	1.33	4.56	26.25
MMS 1988-B3	M1-6	0.16%	79.32%	2.03%	18.21%	2.14	1.21	4.71	30.44
MMS 1988-B3	M1/cgs 1	0.00%	86.71%	1.10%	11.73%	2.12	1.07	5.06	36.54
MMS 1988-B3	M1/cgs 2	0.01%	84.43%	1.56%	13.74%	2.10	1.17	4.70	30.30
MMS 1989-B4	M1-1	0.69%	68.58%	5.26%	24.53%	2.31	1.67	3.18	14.30
MMS 1989-B4	M1-2	0.38%	74.81%	3.96%	19.88%	2.32	1.45	3.30	16.81
MMS 1989-B4	M1-3	0.87%	71.25%	4.33%	22.05%	2.28	1.58	3.05	14.47
MMS 1989-B4	M1-4	8.01%	56.31%	7.16%	26.43%	2.08	2.21	1.74	7.33
MMS 1989-B4	M1-5	0.20%	60.29%	5.79%	31.43%	2.22	1.84	3.18	12.53
MMS 1989-B4	M1-6	0.43%	53.52%	6.44%	37.76%	2.16	1.90	3.08	11.64
MMS 1989-B4	M1/cgs	0.46%	65.27%	5.67%	27.64%	2.26	1.60	3.20	14.19

Sediment Compilation by Station

Cruise No.	Sample No.	% Gravel	% Sand	% Silt	% Clay	Mean Phi	Sorting	Skewness	Kurtosis
MMS 1987-G1A	M2-1	0.35%	89.33%	1.17%	9.15%	1.77	1.59	4.76	26.08
MMS 1987-G1A	M2-2	0.95%	88.03%	1.17%	9.83%	1.48	0.85	4.55	44.82
MMS 1987-G1A	M2-3	0.29%	87.58%	1.04%	11.06%	1.66	0.96	5.78	47.39
MMS 1987-G1A	M2-7	0.03%	88.58%	1.29%	10.10%	1.57	0.81	6.60	62.28
MMS 1987-G1A	M2-8	0.33%	88.58%	1.20%	9.88%	1.54	0.81	5.86	53.99
MMS 1987-G1A	M2-9	0.09%	88.87%	1.15%	9.83%	1.56	0.84	6.14	56.01
MMS 1987-G1A	M2/cgs	0.53%	88.15%	1.10%	10.20%	1.55	0.86	5.68	52.31
MMS 1987-B1	M2-1	3.16%	90.52%	1.13%	3.34%	1.82	1.32	2.73	21.88
MMS 1987-B1	M2-2	6.00%	88.44%	1.19%	4.11%	1.68	1.64	2.38	15.54
MMS 1987-B1	M2-3	6.78%	86.87%	1.41%	4.74%	1.65	1.66	2.32	14.98
MMS 1987-B1	M2-4	6.10%	88.47%	1.08%	3.97%	1.58	1.53	1.99	15.09
MMS 1987-B1	M2-5	8.05%	86.20%	1.28%	4.17%	1.57	1.72	2.01	13.17
MMS 1987-B1	M2-6	3.20%	90.80%	0.89%	3.47%	1.73	1.29	3.21	24.33
MMS 1987-B1	M2/cgs	3.38%	91.92%	1.30%	3.34%	1.77	1.40	2.70	19.14
MMS 1988-B2	M2-1	4.36%	91.01%	0.83%	3.77%	1.61	1.28	2.38	20.77
MMS 1988-B2	M2-2	10.49%	84.61%	0.83%	3.99%	1.48	1.62	1.84	14.08
MMS 1988-B2	M2-3	3.97%	90.91%	1.01%	4.05%	1.76	1.53	3.09	19.89
MMS 1988-B2	M2-4	10.60%	82.13%	1.60%	5.62%	1.53	1.72	2.00	12.99
MMS 1988-B2	M2/cgs	3.40%	91.36%	0.71%	4.51%	1.70	1.42	3.26	22.61
MMS 1988-B2	M2-1 Core	0.87%	94.54%	0.86%	3.69%	1.65	1.08	5.03	41.20
MMS 1988-B2	M2-2 Core	0.62%	93.62%	1.05%	4.67%	1.76	1.42	4.76	28.69
MMS 1988-B2	M2-2 Core	1.34%	94.26%	0.79%	3.56%	1.66	1.19	5.01	37.50
MMS 1988-B2	M2-4 Core	0.76%	93.47%	1.38%	4.36%	1.79	1.45	4.33	24.66
MMS 1988-B2	M2-5 Core	0.38%	94.77%	0.99%	3.81%	1.74	1.28	5.14	33.85
MMS 1988-B2	M2-6 Core	1.21%	90.56%	2.20%	6.00%	1.86	1.61	3.73	19.18
MMS 1988-B3	M2-1	0.38%	89.69%	0.47%	9.43%	1.53	0.79	6.21	65.96
MMS 1988-B3	M2-2	0.14%	86.14%	0.50%	12.71%	1.52	0.91	6.66	58.99
MMS 1988-B3	M2-3	0.27%	88.38%	0.42%	10.91%	1.52	0.79	6.15	59.31
MMS 1988-B3	M2-4	0.25%	86.30%	0.46%	12.90%	1.54	0.98	6.45	53.30
MMS 1988-B3	M2-5	0.20%	86.57%	0.57%	12.62%	1.53	0.99	6.50	54.28
MMS 1988-B3	M2-6	0.88%	87.54%	0.44%	11.08%	1.52	0.92	5.60	52.20
MMS 1988-B3	M2/cgs 1	0.35%	88.34%	0.50%	10.75%	1.54	0.88	6.59	62.05
MMS 1988-B3	M2/cgs 2	0.32%	89.68%	0.63%	9.25%	1.58	0.93	6.54	57.29
MMS 1989-B4	M2-1	0.23%	84.95%	1.63%	13.18%	1.49	0.81	5.09	44.71
MMS 1989-B4	M2-2	0.07%	85.89%	1.21%	12.77%	1.46	0.73	5.77	56.28
MMS 1989-B4	M2-3	0.26%	81.14%	1.58%	16.93%	1.40	0.79	4.93	46.31
MMS 1989-B4	M2-4	0.20%	85.41%	0.88%	13.40%	1.47	0.92	6.49	60.74
MMS 1989-B4	M2-5	1.11%	86.24%	1.30%	11.26%	1.50	0.96	4.73	44.44
MMS 1989-B4	M2-6	0.30%	85.97%	0.73%	12.94%	1.45	0.69	4.01	39.05
MMS 1989-B4	M2/cgs	0.75%	87.44%	1.09%	10.56%	1.49	0.89	5.28	50.35

Sediment Compilation by Station

Cruise No.	Sample No.	% Gravel	% Sand	% Silt	% Clay	Mean Phi	Sorting	Skewness	Kurtosis
MMS 1987-G1A	M3-1	0.30%	65.05%	7.63%	27.03%	2.40	2.03	2.98	10.75
MMS 1987-G1A	M3-2	0.27%	75.85%	5.91%	17.86%	2.34	1.64	3.38	15.44
MMS 1987-G1A	M3-3	0.34%	56.38%	8.94%	34.33%	2.45	2.28	2.74	8.84
MMS 1987-G1A	M3-7	0.20%	64.57%	8.78%	26.38%	2.38	1.89	3.07	11.73
MMS 1987-G1A	M3-8	0.52%	74.53%	5.62%	19.25%	2.17	1.55	3.38	16.38
MMS 1987-G1A	M3-9	0.45%	55.85%	7.93%	35.65%	2.31	2.24	2.84	9.46
MMS 1987-G1A	M3/cgs	0.19%	68.33%	6.87%	24.51%	2.32	1.90	3.19	12.43
MMS 1987-B1	M3-1	0.56%	64.89%	17.73%	16.54%	3.79	2.83	1.28	3.36
MMS 1987-B1	M3-2	0.63%	67.91%	15.02%	16.10%	3.97	3.10	1.06	2.60
MMS 1987-B1	M3-3	1.74%	73.97%	8.24%	15.75%	3.09	2.64	1.82	5.32
MMS 1987-B1	M3-4	0.35%	56.61%	23.80%	18.92%	4.69	3.22	0.59	1.70
MMS 1987-B1	M3-5	0.74%	66.87%	15.26%	17.04%	3.74	3.08	1.19	2.89
MMS 1987-B1	M3-6	1.43%	51.07%	22.34%	24.76%	4.90	3.42	0.48	1.77
MMS 1987-B1	M3/cgs	0.34%	70.11%	10.39%	18.88%	3.63	3.00	1.52	3.74
MMS 1988-B2	M3-1	0.64%	59.28%	20.10%	19.79%	4.48	3.08	0.76	2.02
MMS 1988-B2	M3-2	0.77%	76.17%	15.79%	6.90%	3.37	2.46	1.48	4.21
MMS 1988-B2	M3-3	0.49%	65.65%	16.79%	16.82%	4.12	2.98	0.99	2.43
MMS 1988-B2	M3-4	0.48%	58.05%	15.49%	25.89%	4.60	3.29	0.74	1.90
MMS 1988-B2	M3-5	0.41%	62.00%	17.78%	19.62%	4.35	3.07	0.87	2.15
MMS 1988-B2	M3-6	0.48%	62.31%	23.80%	13.24%	4.25	2.99	0.84	2.15
MMS 1988-B2	M3/cgs	1.28%	65.08%	16.70%	16.69%	4.08	3.06	0.87	2.29
MMS 1988-B3	M3-1	0.27%	55.80%	7.80%	33.47%	2.57	2.30	2.72	8.67
MMS 1988-B3	M3-2	0.51%	50.75%	8.95%	37.29%	2.63	2.45	2.54	7.59
MMS 1988-B3	M3-3	0.84%	48.98%	9.49%	37.82%	2.73	2.56	2.38	6.77
MMS 1988-B3	M3-4	0.28%	40.27%	12.25%	44.51%	2.91	2.77	2.21	5.63
MMS 1988-B3	M3-5	3.63%	50.39%	8.58%	33.22%	2.53	2.50	2.20	7.10
MMS 1988-B3	M3-6	0.34%	55.40%	7.28%	33.09%	2.55	2.31	2.68	8.55
MMS 1988-B3	M3/cgs 1	0.43%	56.36%	6.79%	31.94%	2.43	2.19	2.80	9.47
MMS 1988-B3	M3/cgs 2	0.90%	45.35%	7.69%	43.44%	2.43	2.52	2.58	7.76
MMS 1989-B4	M3-1	0.46%	53.63%	6.63%	38.98%	1.85	1.87	3.24	12.65
MMS 1989-B4	M3-2	1.46%	51.65%	6.24%	40.53%	1.82	2.02	3.19	12.87
MMS 1989-B4	M3-3	0.18%	41.33%	8.88%	49.16%	1.90	2.09	2.99	10.49
MMS 1989-B4	M3-4	1.06%	44.19%	7.50%	46.52%	2.06	2.38	2.69	8.59
MMS 1989-B4	M3-5	3.29%	54.32%	7.69%	34.07%	1.98	2.04	2.45	9.63
MMS 1989-B4	M3-6	0.48%	56.30%	6.40%	36.51%	1.91	1.83	3.36	13.95
MMS 1989-B4	M3/cgs	1.19%	69.20%	4.29%	25.11%	2.01	1.67	3.30	15.60

Sediment Compilation by Station

Cruise No.	Sample No.	% Gravel	% Sand	% Silt	% Clay	Mean Phi	Sorting	Skewness	Kurtosis
MMS 1987-G1A	M4-1	0.00%	2.05%	18.88%	78.99%	3.29	3.41	1.84	3.52
MMS 1987-G1A	M4-2	0.00%	1.82%	17.10%	81.08%	3.45	3.47	1.78	3.28
MMS 1987-G1A	M4-3	0.07%	1.89%	16.03%	82.00%	3.37	3.50	1.78	3.30
MMS 1987-G1A	M4-7	0.00%	2.72%	17.19%	80.02%	3.51	3.46	1.78	3.26
MMS 1987-G1A	M4-8	0.00%	2.48%	17.76%	79.68%	3.52	3.44	1.77	3.25
MMS 1987-G1A	M4-9	0.01%	1.62%	17.66%	80.63%	3.46	3.46	1.78	3.28
MMS 1987-G1A	M4/cgs	0.00%	2.02%	19.25%	78.73%	3.67	3.42	1.73	3.12
MMS 1987-B1	M4-1	0.02%	6.69%	78.84%	14.33%	6.91	1.92	-0.37	2.98
MMS 1987-B1	M4-2	0.05%	2.69%	46.42%	50.74%	7.58	1.94	0.20	2.98
MMS 1987-B1	M4-3	0.10%	3.12%	37.08%	59.68%	5.65	2.83	1.35	2.33
MMS 1987-B1	M4-4	0.05%	7.68%	77.31%	14.81%	7.23	1.90	-0.82	3.73
MMS 1987-B1	M4-5	0.09%	6.83%	77.67%	15.37%	7.17	1.89	-0.61	3.41
MMS 1987-B1	M4-6	0.05%	7.94%	79.71%	12.20%	7.12	1.91	-0.82	3.66
MMS 1987-B1	M4/cgs	0.01%	4.90%	79.39%	15.43%	6.91	1.79	-0.21	3.22
MMS 1988-B2	M4-1 REP1	0.05%	2.61%	35.23%	62.06%	6.38	2.60	1.17	2.10
MMS 1988-B2	M4-1 REP3	16.00%	4.16%	79.39%	16.87%	7.26	1.74	-0.73	4.51
MMS 1988-B2	M4-2	0.17%	2.30%	29.62%	67.87%	7.59	2.14	0.39	2.67
MMS 1988-B2	M4-3	0.00%	6.06%	35.28%	58.60%	7.10	2.58	0.52	2.04
MMS 1988-B2	M4-4 REP2	0.00%	5.23%	49.12%	45.62%	7.10	2.27	-0.38	2.81
MMS 1988-B2	M4-4 REP7	0.35%	6.93%	28.98%	63.67%	7.52	2.04	0.33	2.12
MMS 1988-B2	M4-5 REP3	0.04%	14.43%	32.77%	52.67%	5.72	2.95	0.94	2.08
MMS 1988-B2	M4-5 REP12	0.04%	2.35%	36.75%	60.82%	6.48	2.54	1.18	2.11
MMS 1988-B2	M4-6	0.11%	3.81%	36.17%	59.88%	8.15	1.99	-0.76	4.08
MMS 1988-B2	M4-9 REP4	0.00%	5.37%	48.66%	45.91%	7.11	2.13	0.31	2.31
MMS 1988-B2	M4/cgs	0.03%	3.72%	44.90%	51.33%	7.53	1.89	-0.12	2.92
MMS 1988-B3	M4-1	0.02%	5.25%	16.01%	78.42%	3.28	3.42	1.82	3.46
MMS 1988-B3	M4-2	0.05%	4.61%	17.18%	77.52%	3.28	3.41	1.82	3.47
MMS 1988-B3	M4-3	0.13%	6.05%	14.98%	78.50%	3.16	3.43	1.86	3.61
MMS 1988-B3	M4-4	0.00%	3.27%	14.48%	81.88%	2.93	3.47	1.91	3.75
MMS 1988-B3	M4-5	0.00%	10.65%	10.63%	78.46%	2.89	3.44	1.98	4.02
MMS 1988-B3	M4-6	0.00%	3.52%	12.37%	83.87%	2.88	3.51	1.92	3.79
MMS 1988-B3	M4/cgs 1	0.00%	4.42%	13.89%	81.42%	3.14	3.49	1.86	3.56
MMS 1988-B3	M4/cgs 2	0.05%	4.17%	13.80%	81.61%	3.06	3.50	1.87	3.61
MMS 1989-B4	M4-1	0.00%	3.83%	14.40%	81.54%	2.56	3.27	2.07	4.44
MMS 1989-B4	M4-2	0.09%	4.19%	14.79%	80.84%	2.62	3.32	2.06	4.43
MMS 1989-B4	M4-3	0.00%	8.90%	11.20%	79.58%	2.27	3.19	2.25	5.26
MMS 1989-B4	M4-4	0.00%	4.72%	14.73%	80.36%	2.52	3.24	2.08	4.50
MMS 1989-B4	M4-5	0.05%	4.55%	16.55%	78.44%	2.31	3.11	2.15	4.88
MMS 1989-B4	M4-6	0.00%	4.92%	16.78%	78.06%	2.47	3.19	2.11	4.65
MMS 1989-B4	M4/cgs	0.16%	2.99%	15.53%	81.18%	2.39	3.32	2.08	4.48

Sediment Compilation by Cruise

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Sediment Compilation by Cruise

Cruise No.	Sample No.	% Gravel	% Sand	% Silt	% Clay	Mean Phi	Sorting	Skewness	Kurtosis
MMS 1987-G1A	C1-1	0.02%	30.75%	28.60%	39.29%	3.15	2.19	2.59	7.63
MMS 1987-G1A	C1-2	0.05%	29.00%	29.82%	40.28%	3.21	2.20	2.58	7.73
MMS 1987-G1A	C1-3	0.00%	35.53%	28.71%	34.70%	3.15	2.03	2.70	8.56
MMS 1987-G1A	C1-7	0.07%	31.24%	27.20%	39.31%	3.00	2.19	2.58	7.72
MMS 1987-G1A	C1-8	0.36%	30.74%	26.82%	41.33%	2.82	2.08	2.55	8.19
MMS 1987-G1A	C1-9	0.26%	28.71%	26.88%	43.37%	2.89	2.21	2.54	7.70
MMS 1987-G1A	C1/cgs	0.16%	31.78%	31.41%	36.18%	3.18	2.06	2.61	8.17
MMS 1987-G1A	C2-1	0.69%	72.44%	3.27%	23.58%	2.03	1.64	3.67	17.72
MMS 1987-G1A	C2-2	14.63%	68.54%	1.40%	15.35%	0.80	1.63	2.12	13.56
MMS 1987-G1A	C2-3	0.84%	68.99%	3.15%	26.92%	1.75	1.73	3.75	17.34
MMS 1987-G1A	C2-7	2.24%	61.40%	2.85%	33.52%	1.61	2.06	3.30	13.39
MMS 1987-G1A	C2-8	0.51%	75.69%	1.29%	22.42%	1.64	1.28	4.49	28.86
MMS 1987-G1A	C2-9	1.39%	73.70%	2.84%	21.99%	1.76	1.79	3.49	16.13
MMS 1987-G1A	C2/cgs	5.86%	70.52%	3.02%	20.49%	1.56	1.74	2.44	13.10
MMS 1987-G1A	C3-1	0.00%	0.30%	19.65%	80.04%	3.26	3.43	1.82	3.42
MMS 1987-G1A	C3-2	0.00%	0.28%	17.29%	82.37%	2.94	3.44	1.89	3.70
MMS 1987-G1A	C3-3	0.00%	0.26%	17.75%	81.90%	3.13	3.47	1.84	3.48
MMS 1987-G1A	C3-7	0.00%	0.27%	17.41%	82.28%	2.95	3.45	1.90	3.74
MMS 1987-G1A	C3-8	0.00%	0.30%	16.41%	83.25%	2.77	3.43	1.94	3.89
MMS 1987-G1A	C3-9	0.00%	0.27%	15.83%	83.89%	2.64	3.42	1.96	3.95
MMS 1987-G1A	C3/cgs	0.00%	0.32%	18.26%	81.34%	3.03	3.42	1.85	3.53
MMS 1987-G1A	C4-1	0.00%	0.11%	17.71%	82.18%	3.16	3.49	1.82	3.43
MMS 1987-G1A	C4-2	0.00%	0.09%	15.42%	84.45%	3.01	3.55	1.85	3.52
MMS 1987-G1A	C4-3	0.00%	0.11%	16.59%	83.24%	3.10	3.52	1.82	3.41
MMS 1987-G1A	C4-7	0.00%	0.13%	15.81%	84.00%	3.24	3.55	1.79	3.29
MMS 1987-G1A	C4-8	0.00%	0.19%	16.53%	83.24%	3.42	3.54	1.76	3.18
MMS 1987-G1A	C4-9	0.00%	0.11%	15.08%	84.73%	3.06	3.56	1.83	3.42
MMS 1987-G1A	C4/cgs	0.00%	0.11%	17.62%	82.20%	3.18	3.50	1.81	3.38
MMS 1987-G1A	D1-1	0.02%	93.45%	0.46%	6.06%	1.93	0.64	2.26	21.21
MMS 1987-G1A	D1-2	0.31%	91.28%	0.99%	7.40%	1.96	1.13	4.43	30.53
MMS 1987-G1A	D2-2	43.19%	47.43%	0.97%	8.33%	-0.42	1.28	2.09	12.66

Sediment Compilation by Cruise

Cruise No.	Sample No.	% Gravel	% Sand	% Silt	% Clay	Mean Phi	Sorting	Skewness	Kurtosis
MMS 1987-G1A	D3-1	0.01%	25.63%	37.28%	35.15%	3.43	2.22	2.28	6.17
MMS 1987-G1A	D3-2	2.35%	41.60%	30.43%	24.92%	3.18	2.32	1.56	5.50
MMS 1987-G1A	D3-3	0.24%	29.66%	42.11%	27.29%	3.74	2.25	1.86	5.46
MMS 1987-G1A	D3-7	0.13%	28.04%	44.72%	25.83%	3.96	2.17	1.96	5.50
MMS 1987-G1A	D3-8	0.62%	37.73%	36.23%	24.16%	3.56	2.22	1.83	5.78
MMS 1987-G1A	D3-9	0.48%	39.93%	36.55%	20.92%	3.51	2.04	1.97	6.65
MMS 1987-G1A	D3/cgs	0.98%	40.89%	33.26%	23.91%	3.46	2.30	1.69	5.24
MMS 1987-G1A	D4-1	0.09%	4.73%	39.39%	55.69%	3.94	2.90	1.76	3.55
MMS 1987-G1A	D4-2	0.00%	4.42%	35.63%	59.71%	3.71	2.92	1.84	3.75
MMS 1987-G1A	D4-3	0.16%	4.70%	34.65%	60.18%	4.12	2.95	1.66	3.15
MMS 1987-G1A	D4-7	0.00%	4.35%	40.35%	55.10%	4.36	2.85	1.70	3.19
MMS 1987-G1A	D4-8	0.03%	3.94%	32.91%	62.86%	3.53	2.94	1.87	3.78
MMS 1987-G1A	D4-9	0.00%	4.05%	38.25%	57.38%	4.27	2.87	1.73	3.25
MMS 1987-G1A	D4/cgs	0.00%	5.23%	36.32%	58.45%	4.10	2.91	1.71	3.28
MMS 1987-G1A	M1-1	0.13%	82.10%	0.45%	17.30%	2.14	1.08	4.68	34.15
MMS 1987-G1A	M1-2	0.15%	86.96%	0.90%	11.99%	2.31	0.90	4.29	37.10
MMS 1987-G1A	M1-3	0.02%	92.04%	0.33%	7.58%	2.35	0.69	3.65	38.13
MMS 1987-G1A	M1-4	0.38%	90.54%	0.44%	8.59%	2.29	0.82	2.68	29.37
MMS 1987-G1A	M1-7	0.39%	89.03%	0.72%	9.75%	2.32	0.86	2.91	29.33
MMS 1987-G1A	M1-8	1.34%	86.97%	0.61%	11.02%	2.53	1.84	3.23	15.14
MMS 1987-G1A	M1/cgs	1.30%	89.81%	0.81%	8.07%	2.25	0.93	1.69	24.14
MMS 1987-G1A	M2-1	0.35%	89.33%	1.17%	9.15%	1.77	1.59	4.76	26.08
MMS 1987-G1A	M2-2	0.95%	88.03%	1.17%	9.83%	1.48	0.85	4.55	44.82
MMS 1987-G1A	M2-3	0.29%	87.58%	1.04%	11.06%	1.66	0.96	5.78	47.39
MMS 1987-G1A	M2-7	0.03%	88.58%	1.29%	10.10%	1.57	0.81	6.60	62.28
MMS 1987-G1A	M2-8	0.33%	88.58%	1.20%	9.88%	1.54	0.81	5.86	53.99
MMS 1987-G1A	M2-9	0.09%	88.87%	1.15%	9.83%	1.56	0.84	6.14	56.01
MMS 1987-G1A	M2/cgs	0.53%	88.15%	1.10%	10.20%	1.55	0.86	5.68	52.31
MMS 1987-G1A	M3-1	0.30%	65.05%	7.63%	27.03%	2.40	2.03	2.98	10.75
MMS 1987-G1A	M3-2	0.27%	75.85%	5.91%	17.86%	2.34	1.64	3.38	15.44
MMS 1987-G1A	M3-3	0.34%	56.38%	8.94%	34.33%	2.45	2.28	2.74	8.84

Sediment Compilation by Cruise

Cruise No.	Sample No.	% Gravel	% Sand	% Silt	% Clay	Mean Phi	Sorting	Skewness	Kurtosis
MMS 1987-G1A	M3-7	0.20%	64.57%	8.78%	26.38%	2.38	1.89	3.07	11.73
MMS 1987-G1A	M3-8	0.52%	74.53%	5.62%	19.25%	2.17	1.55	3.38	16.38
MMS 1987-G1A	M3-9	0.45%	55.85%	7.93%	35.65%	2.31	2.24	2.84	9.46
MMS 1987-G1A	M3/cgs	0.19%	68.33%	6.87%	24.51%	2.32	1.90	3.19	12.43
MMS 1987-G1A	M4-1	0.00%	2.05%	18.88%	78.99%	3.29	3.41	1.84	3.52
MMS 1987-G1A	M4-2	0.00%	1.82%	17.10%	81.08%	3.45	3.47	1.78	3.28
MMS 1987-G1A	M4-3	0.07%	1.89%	16.03%	82.00%	3.37	3.50	1.78	3.30
MMS 1987-G1A	M4-7	0.00%	2.72%	17.19%	80.02%	3.51	3.46	1.78	3.26
MMS 1987-G1A	M4-8	0.00%	2.48%	17.76%	79.68%	3.52	3.44	1.77	3.25
MMS 1987-G1A	M4-9	0.01%	1.62%	17.66%	80.63%	3.46	3.46	1.78	3.28
MMS 1987-G1A	M4/cgs	0.00%	2.02%	19.25%	78.73%	3.67	3.42	1.73	3.12

Sediment Compilation by Cruise

Cruise No.	Sample No.	% Gravel	% Sand	% Silt	% Clay	Mean Phi	Sorting	Skewness	Kurtosis
MMS 1987-B1	C1-1	8.18%	49.65%	24.30%	14.67%	3.27	2.39	0.84	5.21
MMS 1987-B1	C1-2	0.64%	55.98%	25.09%	15.45%	3.68	1.94	2.32	8.12
MMS 1987-B1	C1-3	0.45%	57.35%	22.92%	14.91%	3.57	1.92	2.37	8.38
MMS 1987-B1	C1-4	0.12%	61.53%	20.29%	13.37%	3.57	1.80	2.74	9.75
MMS 1987-B1	C1-5	0.16%	57.48%	21.82%	16.02%	3.66	1.97	2.55	8.23
MMS 1987-B1	C1-6	0.24%	58.80%	27.74%	10.46%	4.03	2.22	1.88	5.14
MMS 1987-B1	C1/cgs	0.37%	54.73%	24.60%	16.37%	3.59	1.91	2.47	8.45
MMS 1987-B1	C2-1	0.31%	23.82%	63.03%	12.18%	5.90	2.55	0.06	1.9
MMS 1987-B1	C2-2	0.45%	23.02%	64.74%	10.67%	6.06	2.50	-0.02	1.85
MMS 1987-B1	C2-3	0.20%	27.42%	59.31%	11.83%	5.80	2.54	0.20	1.79
MMS 1987-B1	C2-4	0.31%	26.57%	62.72%	9.02%	5.82	2.53	0.06	1.8
MMS 1987-B1	C2-5	0.67%	26.98%	60.16%	10.14%	5.81	2.57	0.07	1.96
MMS 1987-B1	C2-6	0.20%	24.56%	52.86%	20.95%	5.97	2.61	0.28	1.83
MMS 1987-B1	C2/cgs	0.27%	26.13%	42.31%	29.62%	5.48	2.85	0.73	2.19
MMS 1987-B1	C3-1	0.03%	1.97%	56.83%	41.10%	7.26	2.03	0.27	2.32
MMS 1987-B1	C3-2	0.02%	1.96%	43.79%	54.18%	6.86	2.40	0.93	1.99
MMS 1987-B1	C3-3	0.00%	2.38%	52.12%	45.49%	7.30	2.07	0.32	2.19
MMS 1987-B1	C3-4	0.00%	1.99%	48.58%	49.34%	7.23	2.14	0.58	2.07
MMS 1987-B1	C3-5	0.03%	2.39%	46.88%	50.69%	7.31	2.18	0.40	2.12
MMS 1987-B1	C3-6	0.03%	2.11%	65.11%	32.73%	7.24	1.92	0.07	2.63
MMS 1987-B1	C3/cgs	0.00%	2.74%	45.38%	51.63%	6.50	2.50	1.02	2.12
MMS 1987-B1	C4-1	0.00%	0.30%	88.28%	11.42%	7.62	1.17	-0.25	4.27
MMS 1987-B1	C4-2	1.05%	0.44%	88.18%	10.32%	7.66	1.47	-2.79	18.17
MMS 1987-B1	C4-3	0.00%	0.19%	82.52%	17.27%	7.66	1.25	0.12	3.55
MMS 1987-B1	C4-4	0.00%	0.24%	80.04%	19.72%	7.67	1.28	0.14	3.89
MMS 1987-B1	C4-5	0.00%	0.30%	42.73%	56.96%	7.48	1.94	1.04	2.12
MMS 1987-B1	C4-6	0.00%	0.23%	49.46%	50.29%	7.54	1.77	0.95	2.29
MMS 1987-B1	C4/cgs	0.00%	0.45%	41.87%	57.67%	6.67	2.35	1.33	2.2
MMS 1987-B1	D1-1	0.59%	97.76%	0.12%	0.93%	1.80	0.67	1.41	29.17
MMS 1987-B1	D1-2	0.15%	97.98%	0.27%	1.11%	1.82	0.63	3.45	43.49
MMS 1987-B1	D1-3	0.39%	97.85%	0.19%	1.19%	1.82	0.72	2.79	35.94
MMS 1987-B1	D1-4	0.14%	98.44%	0.16%	1.09%	1.80	0.66	3.22	40.78
MMS 1987-B1	D1-5	0.13%	98.31%	0.12%	1.07%	1.76	0.63	3.16	41.69

Sediment Compilation by Cruise

Cruise No.	Sample No.	% Gravel	% Sand	% Silt	% Clay	Mean Phi	Sorting	Skewness	Kurtosis
MMS 1987-B1	D1-6	0.07%	97.88%	0.61%	1.42%	1.97	0.81	4.68	45.32
MMS 1987-B1	D1/cgs	0.11%	98.34%	0.22%	1.25%	1.94	0.65	2.62	33.2
MMS 1987-B1	D2-1	0.49%	97.39%	0.38%	1.11%	1.51	0.69	3.92	56.89
MMS 1987-B1	D2-2	0.31%	97.56%	0.36%	1.11%	1.53	0.56	4.45	73.04
MMS 1987-B1	D2-3	0.43%	95.20%	0.22%	1.16%	1.44	0.53	1.23	35.9
MMS 1987-B1	D2-4	0.15%	96.99%	0.20%	1.16%	1.51	0.52	5.41	93.02
MMS 1987-B1	D2-5	0.18%	97.35%	0.15%	1.25%	1.51	0.59	6.37	100.76
MMS 1987-B1	D2-6	0.13%	97.69%	0.17%	1.33%	1.52	0.56	5.73	92.01
MMS 1987-B1	D2/cgs	0.34%	97.95%	0.28%	1.29%	1.64	0.66	3.84	52
MMS 1987-B1	D3-1	20.60%	67.11%	5.58%	6.54%	0.42	2.42	2.60	9.9
MMS 1987-B1	D3-2	15.92%	63.47%	10.75%	9.81%	1.12	2.88	1.84	5.72
MMS 1987-B1	D3-3	18.52%	64.61%	8.15%	8.64%	8.57	7.95	-1.09	1.23
MMS 1987-B1	D3-4	31.33%	56.99%	5.36%	6.26%	0.16	2.44	2.70	10.32
MMS 1987-B1	D3-5	15.94%	70.71%	6.08%	7.18%	0.69	2.37	2.40	9.24
MMS 1987-B1	D3-6	11.86%	74.80%	6.18%	7.07%	0.71	2.31	2.48	9.69
MMS 1987-B1	D3/cgs	15.51%	74.21%	6.02%	4.15%	0.51	2.19	2.61	10.41
MMS 1987-B1	D4-1	0.15%	5.93%	82.27%	11.44%	6.39	1.88	0.00	3.18
MMS 1987-B1	D4-2	0.09%	5.93%	80.09%	13.65%	6.39	1.93	0.16	2.79
MMS 1987-B1	D4-3	0.06%	6.00%	81.55%	12.17%	6.45	1.87	0.02	2.92
MMS 1987-B1	D4-4	0.02%	6.73%	73.99%	18.98%	6.34	2.09	0.35	2.46
MMS 1987-B1	D4-5	0.05%	11.35%	74.08%	12.65%	6.10	2.08	0.27	2.39
MMS 1987-B1	D4-6	0.04%	6.45%	79.28%	13.84%	6.42	1.94	0.13	2.68
MMS 1987-B1	D4/cgs	0.00%	11.15%	53.07%	35.19%	5.36	2.58	1.20	2.71
MMS 1987-B1	M1-1	0.16%	97.62%	0.27%	1.49%	2.09	0.63	1.83	26.09
MMS 1987-B1	M1-2	0.21%	96.83%	0.40%	1.93%	2.19	0.77	3.55	40.96
MMS 1987-B1	M1-3	0.23%	97.19%	0.33%	2.02%	2.15	0.74	3.27	40.49
MMS 1987-B1	M1-4	1.87%	93.48%	0.92%	2.80%	2.18	1.08	1.44	19.21
MMS 1987-B1	M1-5	17.14%	77.37%	0.76%	2.68%	1.44	1.80	0.30	5.86
MMS 1987-B1	M1-6	0.29%	95.11%	0.50%	2.53%	2.24	0.84	4.38	45.66
MMS 1987-B1	M2-1	3.16%	90.52%	1.13%	3.34%	1.82	1.32	2.73	21.88
MMS 1987-B1	M2-2	6.00%	88.44%	1.19%	4.11%	1.68	1.64	2.38	15.54
MMS 1987-B1	M2-3	6.78%	86.87%	1.41%	4.74%	1.65	1.66	2.32	14.98
MMS 1987-B1	M2-4	6.10%	88.47%	1.08%	3.97%	1.58	1.53	1.99	15.09

Sediment Compilation by Cruise

Cruise No.	Sample No.	% Gravel	% Sand	% Silt	% Clay	Mean Phi	Sorting	Skewness	Kurtosis
MMS 1987-B1	M2-5	8.05%	86.20%	1.28%	4.17%	1.57	1.72	2.01	13.17
MMS 1987-B1	M2-6	3.20%	90.80%	0.89%	3.47%	1.73	1.29	3.21	24.33
MMS 1987-B1	M2/cgs	3.38%	91.92%	1.30%	3.34%	1.77	1.40	2.70	19.14
MMS 1987-B1	M3-1	0.56%	64.89%	17.73%	16.54%	3.79	2.83	1.28	3.36
MMS 1987-B1	M3-2	0.63%	67.91%	15.02%	16.10%	3.97	3.10	1.06	2.6
MMS 1987-B1	M3-3	1.74%	73.97%	8.24%	15.75%	3.09	2.64	1.82	5.32
MMS 1987-B1	M3-4	0.35%	56.61%	23.80%	18.92%	4.69	3.22	0.59	1.7
MMS 1987-B1	M3-5	0.74%	66.87%	15.26%	17.04%	3.74	3.08	1.19	2.89
MMS 1987-B1	M3-6	1.43%	51.07%	22.34%	24.76%	4.90	3.42	0.48	1.77
MMS 1987-B1	M3/cgs	0.34%	70.11%	10.39%	18.88%	3.63	3.00	1.52	3.74
MMS 1987-B1	M4-1	0.02%	6.69%	78.84%	14.33%	6.91	1.92	-0.37	2.98
MMS 1987-B1	M4-2	0.05%	2.69%	46.42%	50.74%	7.58	1.94	0.20	2.98
MMS 1987-B1	M4-3	0.10%	3.12%	37.08%	59.68%	5.65	2.83	1.35	2.33
MMS 1987-B1	M4-4	0.05%	7.68%	77.31%	14.81%	7.23	1.90	-0.82	3.73
MMS 1987-B1	M4-5	0.09%	6.83%	77.67%	15.37%	7.17	1.89	-0.61	3.41
MMS 1987-B1	M4-6	0.05%	7.94%	79.71%	12.20%	7.12	1.91	-0.82	3.66
MMS 1987-B1	M4/cgs	0.01%	4.90%	79.39%	15.43%	6.91	1.79	-0.21	3.22

Sediment Compilation by Cruise

Cruise No.	Sample No.	% Gravel	% Sand	% Silt	% Clay	Mean Phi	Sorting	Skewness	Kurtosis
MMS 1988-B2	C1-1	0.08%	51.12%	25.82%	19.02%	4.54	2.49	1.62	3.98
MMS 1988-B2	C1-2	0.04%	50.65%	29.93%	16.52%	4.56	2.32	1.68	4.29
MMS 1988-B2	C1-3	0.03%	19.24%	73.47%	6.37%	4.61	1.55	2.23	8.26
MMS 1988-B2	C1-4	0.04%	57.33%	26.89%	12.54%	4.35	2.19	1.74	4.69
MMS 1988-B2	C1-5	0.08%	55.77%	25.75%	15.22%	4.13	2.19	2.08	6.09
MMS 1988-B2	C1-6	0.12%	51.14%	27.88%	18.11%	4.51	2.39	1.58	4.05
MMS 1988-B2	C1/cgs	0.09%	52.85%	36.15%	7.79%	4.51	2.21	1.34	3.46
MMS 1988-B2	C2-1	0.06%	23.08%	46.29%	30.48%	5.80	2.68	0.63	1.95
MMS 1988-B2	C2-2	0.32%	25.13%	43.53%	30.93%	6.19	2.89	-0.04	1.68
MMS 1988-B2	C2-3	0.14%	24.75%	37.76%	37.25%	6.17	2.92	0.21	1.68
MMS 1988-B2	C2-4	0.13%	11.92%	44.08%	43.83%	7.06	2.47	-0.40	2.16
MMS 1988-B2	C2-5	0.19%	19.49%	37.50%	42.66%	6.28	2.92	0.41	1.78
MMS 1988-B2	C2-6	0.00%	19.63%	59.12%	21.15%	5.99	2.52	0.28	1.83
MMS 1988-B2	C2/cgs	0.18%	13.25%	41.20%	45.31%	7.02	2.53	-0.38	2.14
MMS 1988-B2	C3-1	0.01%	4.35%	45.01%	50.58%	7.50	2.06	-0.23	2.56
MMS 1988-B2	C3-2	0.00%	4.67%	61.49%	33.82%	7.24	2.00	-0.26	2.70
MMS 1988-B2	C3-3	0.07%	8.46%	38.81%	52.60%	7.46	2.30	-0.61	2.83
MMS 1988-B2	C3-4	0.06%	9.85%	30.12%	59.92%	7.05	2.73	0.23	1.85
MMS 1988-B2	C3-5	0.17%	18.35%	62.48%	18.95%	6.58	2.57	-0.47	2.11
MMS 1988-B2	C3-6	0.22%	22.21%	30.32%	47.22%	6.73	2.93	-0.38	1.77
MMS 1988-B2	C3/cgs	0.45%	45.80%	15.86%	37.60%	5.50	3.35	0.31	1.45
MMS 1988-B2	C4-1	0.00%	0.26%	36.60%	63.11%	7.79	1.74	0.71	2.04
MMS 1988-B2	C4-2	0.00%	0.27%	27.99%	71.72%	5.05	3.05	1.52	2.41
MMS 1988-B2	C4-3	0.11%	0.35%	27.85%	71.68%	6.48	2.61	1.31	2.12
MMS 1988-B2	C4-4	0.00%	0.26%	29.69%	70.02%	5.75	2.84	1.46	2.26
MMS 1988-B2	C4-5	0.00%	0.41%	35.12%	64.41%	5.72	2.73	1.47	2.34
MMS 1988-B2	C4-6	1.10%	0.30%	29.14%	69.40%	6.07	2.86	1.04	2.36
MMS 1988-B2	C4/cgs	0.00%	0.27%	38.20%	61.52%	7.36	2.00	1.11	2.03
MMS 1988-B2	D1-1	1.60%	96.54%	0.15%	1.67%	1.73	0.78	0.37	20.92
MMS 1988-B2	D1-2	1.29%	96.54%	0.12%	2.01%	1.60	0.72	0.80	26.95
MMS 1988-B2	D1-3	1.12%	97.14%	0.13%	1.50%	1.64	0.74	0.12	16.70
MMS 1988-B2	D1-4	1.09%	97.23%	0.11%	1.54%	1.67	0.77	0.86	23.62
MMS 1988-B2	D1-5	0.42%	97.79%	0.17%	1.54%	1.61	0.56	1.16	27.60

Sediment Compilation by Cruise

Cruise No.	Sample No.	% Gravel	% Sand	% Silt	% Clay	Mean Phi	Sorting	Skewness	Kurtosis
MMS 1988-B2	D1-6	0.27%	97.87%	0.06%	1.76%	1.76	0.65	0.80	17.29
MMS 1988-B2	D1-8	0.14%	98.58%	0.14%	1.12%	1.65	0.52	3.49	59.39
MMS 1988-B2	D2-1	3.02%	95.35%	0.20%	1.37%	1.44	0.77	0.90	34.28
MMS 1988-B2	D2-2	0.59%	97.69%	0.20%	1.47%	1.47	0.50	0.49	42.15
MMS 1988-B2	D2-3	0.23%	97.87%	0.23%	1.62%	1.52	0.49	3.01	56.96
MMS 1988-B2	D2-4	0.25%	97.88%	0.28%	1.59%	1.66	0.54	1.51	39.68
MMS 1988-B2	D2-5	0.48%	97.71%	0.24%	1.52%	1.51	0.51	2.50	58.40
MMS 1988-B2	D2-6	0.48%	97.85%	0.08%	1.54%	1.47	0.60	1.32	43.87
MMS 1988-B2	D2/cgs	0.33%	97.98%	0.17%	1.47%	1.50	0.57	5.76	99.04
MMS 1988-B2	D3-1	31.94%	59.07%	3.82%	5.11%	0.12	2.29	2.81	11.67
MMS 1988-B2	D3-2	11.76%	72.44%	7.70%	8.98%	1.03	2.67	2.14	7.32
MMS 1988-B2	D3-3	15.66%	65.93%	9.92%	8.46%	1.07	2.72	1.88	6.11
MMS 1988-B2	D3-4	18.88%	69.14%	6.79%	5.04%	0.68	2.43	2.22	8.13
MMS 1988-B2	D3-5	12.58%	73.37%	6.88%	7.11%	0.98	2.55	2.18	7.76
MMS 1988-B2	D3-6	0.18%	76.97%	15.14%	7.65%	2.42	2.29	2.29	6.63
MMS 1988-B2	D3/cgs	12.69%	73.30%	8.21%	5.70%	1.01	2.72	2.02	6.54
MMS 1988-B2	D4-1	0.01%	4.73%	71.01%	24.15%	6.61	2.05	0.33	2.45
MMS 1988-B2	D4-2	0.05%	4.49%	66.95%	28.47%	6.63	2.10	0.41	2.43
MMS 1988-B2	D4-3	0.00%	6.38%	76.45%	17.11%	6.49	2.03	0.06	2.71
MMS 1988-B2	D4-4	0.00%	6.11%	78.37%	15.41%	6.33	1.93	0.32	2.49
MMS 1988-B2	D4-5	0.03%	5.39%	72.08%	22.45%	6.50	2.10	0.31	2.47
MMS 1988-B2	D4-6	1.40%	4.41%	83.28%	10.83%	6.53	1.96	-1.06	5.71
MMS 1988-B2	D4/cgs	0.03%	5.43%	84.05%	10.32%	6.69	1.81	-0.33	3.18
MMS 1988-B2	M1-1	7.35%	90.14%	0.23%	2.26%	1.48	1.23	-0.21	8.46
MMS 1988-B2	M1-2	12.31%	81.17%	1.06%	5.37%	1.40	1.70	1.13	9.30
MMS 1988-B2	M1-3	10.80%	87.55%	0.08%	1.56%	0.99	1.17	-0.30	7.35
MMS 1988-B2	M1-4	9.78%	87.81%	0.20%	2.16%	1.35	1.24	-0.01	10.39
MMS 1988-B2	M1-5	4.11%	93.41%	0.28%	2.16%	1.60	1.01	-0.61	9.09
MMS 1988-B2	M1-6	6.74%	91.58%	0.10%	1.54%	1.42	1.07	-0.10	14.18
MMS 1988-B2	M1/cgs	5.17%	92.36%	0.38%	2.03%	0.01	1.91	1.94	7.06
MMS 1988-B2	M2-1	4.36%	91.01%	0.83%	3.77%	1.61	1.28	2.38	20.77
MMS 1988-B2	M2-2	10.49%	84.61%	0.83%	3.99%	1.48	1.62	1.84	14.08
MMS 1988-B2	M2-3	3.97%	90.91%	1.01%	4.05%	1.76	1.53	3.09	19.89

Sediment Compilation by Cruise

Cruise No.	Sample No.	% Gravel	% Sand	% Silt	% Clay	Mean Phi	Sorting	Skewness	Kurtosis
MMS 1988-B2	M2-4	10.60%	82.13%	1.60%	5.62%	1.53	1.72	2.00	12.99
MMS 1988-B2	M2/cgs	3.40%	91.36%	0.71%	4.51%	1.70	1.42	3.26	22.61
MMS 1988-B2	M2-1 Core	0.87%	94.54%	0.86%	3.69%	1.65	1.08	5.03	41.20
MMS 1988-B2	M2-2 Core	0.62%	93.62%	1.05%	4.67%	1.76	1.42	4.76	28.69
MMS 1988-B2	M2-2 Core	1.34%	94.26%	0.79%	3.56%	1.66	1.19	5.01	37.50
MMS 1988-B2	M2-4 Core	0.76%	93.47%	1.38%	4.36%	1.79	1.45	4.33	24.66
MMS 1988-B2	M2-5 Core	0.38%	94.77%	0.99%	3.81%	1.74	1.28	5.14	33.85
MMS 1988-B2	M2-6 Core	1.21%	90.56%	2.20%	6.00%	1.86	1.61	3.73	19.18
MMS 1988-B2	M3-1	0.64%	59.28%	20.10%	19.79%	4.48	3.08	0.76	2.02
MMS 1988-B2	M3-2	0.77%	76.17%	15.79%	6.90%	3.37	2.46	1.48	4.21
MMS 1988-B2	M3-3	0.49%	65.65%	16.79%	16.82%	4.12	2.98	0.99	2.43
MMS 1988-B2	M3-4	0.48%	58.05%	15.49%	25.89%	4.60	3.29	0.74	1.90
MMS 1988-B2	M3-5	0.41%	62.00%	17.78%	19.62%	4.35	3.07	0.87	2.15
MMS 1988-B2	M3-6	0.48%	62.31%	23.80%	13.24%	4.25	2.99	0.84	2.15
MMS 1988-B2	M3/cgs	1.28%	65.08%	16.70%	16.69%	4.08	3.06	0.87	2.29
MMS 1988-B2	M4-1 REP1	0.05%	2.61%	35.23%	62.06%	6.38	2.60	1.17	2.10
MMS 1988-B2	M4-1 REP3	16.00%	4.16%	79.39%	16.87%	7.26	1.74	-0.73	4.51
MMS 1988-B2	M4-2	0.17%	2.30%	29.62%	67.87%	7.59	2.14	0.39	2.67
MMS 1988-B2	M4-3	0.00%	6.06%	35.28%	58.60%	7.10	2.58	0.52	2.04
MMS 1988-B2	M4-4 REP2	0.00%	5.23%	49.12%	45.62%	7.10	2.27	-0.38	2.81
MMS 1988-B2	M4-4 REP7	0.35%	6.93%	28.98%	63.67%	7.52	2.04	0.33	2.12
MMS 1988-B2	M4-5 REP3	0.04%	14.43%	32.77%	52.67%	5.72	2.95	0.94	2.08
MMS 1988-B2	M4-5 REP12	0.04%	2.35%	36.75%	60.82%	6.48	2.54	1.18	2.11
MMS 1988-B2	M4-6	0.11%	3.81%	36.17%	59.88%	8.15	1.99	-0.76	4.08
MMS 1988-B2	M4-9 REP4	0.00%	5.37%	48.66%	45.91%	7.11	2.13	0.31	2.31
MMS 1988-B2	M4/cgs	0.03%	3.72%	44.90%	51.33%	7.53	1.89	-0.12	2.92

Sediment Compilation by Cruise

Cruise No.	Sample No.	% Gravel	% Sand	% Silt	% Clay	Mean Phi	Sorting	Skewness	Kurtosis
MMS 1988-B3	C1-2	0.32%	58.57%	10.11%	27.61%	2.46	1.81	2.93	11.50
MMS 1988-B3	C1-3	0.04%	58.23%	11.47%	27.58%	2.58	1.82	3.06	11.78
MMS 1988-B3	C1-4	0.32%	60.92%	9.44%	25.91%	2.53	1.74	3.19	13.49
MMS 1988-B3	C1-5	1.65%	60.85%	9.75%	25.52%	2.43	1.77	2.71	11.77
MMS 1988-B3	C1-6	0.18%	57.82%	8.73%	31.31%	2.46	1.89	3.18	12.39
MMS 1988-B3	C1/cgs	0.24%	65.59%	8.26%	23.97%	2.47	1.60	3.25	14.57
MMS 1988-B3	C2-1	0.15%	18.42%	20.47%	59.17%	3.87	2.58	1.70	4.34
MMS 1988-B3	C2-2	0.61%	20.86%	18.96%	56.74%	2.76	2.86	2.14	5.15
MMS 1988-B3	C2-3	0.04%	22.89%	20.29%	54.96%	2.96	2.81	2.18	5.20
MMS 1988-B3	C2-4	0.22%	23.03%	20.13%	55.05%	4.05	2.45	1.55	4.35
MMS 1988-B3	C2-5	0.16%	17.88%	22.89%	58.45%	2.91	2.86	2.14	5.01
MMS 1988-B3	C2-6	0.15%	21.27%	20.65%	57.36%	2.88	2.83	2.16	5.13
MMS 1988-B3	C2/cgs	0.10%	21.42%	19.55%	57.26%	2.81	2.82	2.20	5.28
MMS 1988-B3	C3-1	0.00%	6.85%	15.19%	77.95%	2.72	3.34	1.99	4.14
MMS 1988-B3	C3-2	0.14%	10.54%	15.22%	74.00%	2.62	3.25	2.04	4.42
MMS 1988-B3	C3-3	0.10%	31.51%	8.72%	59.58%	2.19	2.95	2.35	6.06
MMS 1988-B3	C3-4	1.45%	39.33%	7.55%	51.32%	2.20	2.71	2.49	7.07
MMS 1988-B3	C3-5	0.08%	17.60%	11.69%	70.56%	2.42	3.16	2.20	5.07
MMS 1988-B3	C3-6	0.09%	8.67%	11.68%	79.28%	2.33	3.31	2.14	4.77
MMS 1988-B3	C3/cgs 1	0.10%	3.81%	12.64%	83.43%	2.46	3.39	2.06	4.40
MMS 1988-B3	C3/cgs 2	0.13%	13.28%	13.05%	73.53%	2.71	3.28	2.06	4.44
MMS 1988-B3	C4-1	0.00%	0.35%	12.73%	86.92%	2.73	3.52	1.95	3.92
MMS 1988-B3	C4-2	0.00%	0.27%	14.24%	85.43%	2.74	3.49	1.96	3.94
MMS 1988-B3	C4-3	0.00%	0.25%	12.76%	86.89%	2.68	3.51	1.96	3.95
MMS 1988-B3	C4-4	0.00%	0.22%	11.86%	87.80%	2.61	3.54	1.99	4.05
MMS 1988-B3	C4-5	0.00%	0.66%	14.36%	84.98%	2.69	3.47	1.98	4.03
MMS 1988-B3	C4-6	0.00%	0.28%	14.79%	84.87%	2.94	3.51	1.89	3.69
MMS 1988-B3	C4/cgs 1	0.00%	0.40%	13.16%	86.41%	2.71	3.51	1.97	3.98
MMS 1988-B3	C4/cgs 2	0.00%	0.20%	13.62%	86.04%	2.69	3.51	1.97	3.98
MMS 1988-B3	D1-1	0.04%	90.66%	0.26%	8.97%	1.66	0.90	6.16	58.64
MMS 1988-B3	D1-2	0.10%	91.57%	0.22%	8.02%	1.63	0.87	5.87	58.40
MMS 1988-B3	D1-3	0.29%	90.07%	0.28%	9.26%	1.62	0.88	5.01	49.58
MMS 1988-B3	D1-4	0.06%	92.97%	0.25%	6.63%	1.66	0.82	5.67	59.29

Sediment Compilation by Cruise

Cruise No.	Sample No.	% Gravel	% Sand	% Silt	% Clay	Mean Phi	Sorting	Skewness	Kurtosis
MMS 1988-B3	D1-5	0.26%	91.72%	0.21%	7.79%	1.63	0.86	4.80	50.26
MMS 1988-B3	D1-6	0.60%	91.25%	0.28%	7.78%	1.66	0.85	4.47	47.35
MMS 1988-B3	D1/cgs 1	0.31%	92.42%	0.28%	6.92%	1.71	0.89	5.27	51.73
MMS 1988-B3	D1/cgs 2	0.71%	91.53%	0.20%	7.44%	1.69	0.87	4.79	50.63
MMS 1988-B3	D2-1	2.75%	83.39%	0.56%	13.30%	0.96	0.86	0.38	10.89
MMS 1988-B3	D2-2	2.81%	82.97%	0.75%	13.41%	0.87	0.99	1.68	18.16
MMS 1988-B3	D2-3	3.63%	83.48%	0.76%	12.01%	0.94	1.10	2.41	23.03
MMS 1988-B3	D2-4	6.31%	77.20%	1.28%	15.10%	0.80	1.29	2.59	20.28
MMS 1988-B3	D2-5	5.22%	78.49%	1.17%	15.05%	0.81	1.11	1.85	17.48
MMS 1988-B3	D2-6	1.88%	84.32%	0.58%	13.19%	0.99	0.82	0.25	10.15
MMS 1988-B3	D2/cgs 1	8.04%	79.40%	1.17%	11.29%	0.79	1.34	2.34	18.18
MMS 1988-B3	D2/cgs 2	7.95%	82.64%	0.74%	8.60%	0.83	1.24	1.92	18.24
MMS 1988-B3	D3-1	14.15%	51.56%	5.60%	28.06%	0.40	1.90	2.64	11.49
MMS 1988-B3	D3-2	11.45%	28.79%	8.54%	51.12%	0.67	2.25	2.47	8.68
MMS 1988-B3	D3-3	22.09%	55.97%	1.53%	20.27%	-0.02	1.45	3.01	18.81
MMS 1988-B3	D3-4	21.16%	58.71%	4.49%	15.40%	0.29	2.09	2.73	11.79
MMS 1988-B3	D3-5	21.70%	55.91%	3.24%	19.07%	0.15	1.98	3.18	15.09
MMS 1988-B3	D3-6	21.08%	50.81%	7.30%	20.58%	1.68	3.24	1.06	3.35
MMS 1988-B3	D3/cgs 1	21.89%	58.40%	5.44%	13.57%	0.81	3.01	2.18	6.95
MMS 1988-B3	D3/cgs 2	20.17%	60.46%	6.50%	12.52%	1.17	3.38	1.83	5.16
MMS 1988-B3	D4-1	0.00%	6.47%	31.52%	58.96%	3.93	3.03	1.74	3.30
MMS 1988-B3	D4-2	0.00%	10.27%	24.72%	58.02%	3.47	3.11	1.85	3.64
MMS 1988-B3	D4-3	0.00%	8.62%	24.00%	61.02%	3.48	3.15	1.84	3.60
MMS 1988-B3	D4-4	0.00%	5.03%	29.24%	64.74%	3.85	3.00	1.80	3.50
MMS 1988-B3	D4-5	0.00%	5.85%	31.57%	61.12%	3.89	3.03	1.78	3.39
MMS 1988-B3	D4-6	0.00%	8.38%	30.73%	57.69%	4.01	3.01	1.75	3.31
MMS 1988-B3	D4/cgs 1	0.00%	8.73%	29.69%	55.47%	3.91	3.04	1.77	3.36
MMS 1988-B3	D4/cgs 2	0.00%	8.03%	29.31%	57.05%	3.93	3.06	1.75	3.29
MMS 1988-B3	M1-1	0.47%	86.56%	1.32%	11.64%	1.91	0.84	2.69	23.33
MMS 1988-B3	M1-2	0.17%	84.91%	1.35%	13.44%	1.95	1.19	4.79	31.77
MMS 1988-B3	M1-3	0.21%	77.58%	2.38%	19.65%	1.99	1.50	4.28	22.36
MMS 1988-B3	M1-4	0.01%	81.02%	2.34%	16.39%	2.06	1.38	3.94	22.18
MMS 1988-B3	M1-5	0.05%	76.08%	2.27%	21.57%	2.05	1.33	4.56	26.25

Sediment Compilation by Cruise

Cruise No.	Sample No.	% Gravel	% Sand	% Silt	% Clay	Mean Phi	Sorting	Skewness	Kurtosis
MMS 1988-B3	M1-6	0.16%	79.32%	2.03%	18.21%	2.14	1.21	4.71	30.44
MMS 1988-B3	M1/cgs 1	0.00%	86.71%	1.10%	11.73%	2.12	1.07	5.06	36.54
MMS 1988-B3	M1/cgs 2	0.01%	84.43%	1.56%	13.74%	2.10	1.17	4.70	30.30
MMS 1988-B3	M2-1	0.38%	89.69%	0.47%	9.43%	1.53	0.79	6.21	65.96
MMS 1988-B3	M2-2	0.14%	86.14%	0.50%	12.71%	1.52	0.91	6.66	58.99
MMS 1988-B3	M2-3	0.27%	88.38%	0.42%	10.91%	1.52	0.79	6.15	59.31
MMS 1988-B3	M2-4	0.25%	86.30%	0.46%	12.90%	1.54	0.98	6.45	53.30
MMS 1988-B3	M2-5	0.20%	86.57%	0.57%	12.62%	1.53	0.99	6.50	54.28
MMS 1988-B3	M2-6	0.88%	87.54%	0.44%	11.08%	1.52	0.92	5.60	52.20
MMS 1988-B3	M2/cgs 1	0.35%	88.34%	0.50%	10.75%	1.54	0.88	6.59	62.05
MMS 1988-B3	M2/cgs 2	0.32%	89.68%	0.63%	9.25%	1.58	0.93	6.54	57.29
MMS 1988-B3	M3-1	0.27%	55.80%	7.80%	33.47%	2.57	2.30	2.72	8.67
MMS 1988-B3	M3-2	0.51%	50.75%	8.95%	37.29%	2.63	2.45	2.54	7.59
MMS 1988-B3	M3-3	0.84%	48.98%	9.49%	37.82%	2.73	2.56	2.38	6.77
MMS 1988-B3	M3-4	0.28%	40.27%	12.25%	44.51%	2.91	2.77	2.21	5.63
MMS 1988-B3	M3-5	3.63%	50.39%	8.58%	33.22%	2.53	2.50	2.20	7.10
MMS 1988-B3	M3-6	0.34%	58.40%	7.28%	33.09%	2.55	2.31	2.68	8.55
MMS 1988-B3	M3/cgs 1	0.43%	56.36%	6.79%	31.94%	2.43	2.19	2.80	9.47
MMS 1988-B3	M3/cgs 2	0.90%	45.35%	7.69%	43.44%	2.43	2.52	2.58	7.76
MMS 1988-B3	M4-1	0.02%	5.25%	16.01%	78.42%	3.28	3.42	1.82	3.46
MMS 1988-B3	M4-2	0.05%	4.61%	17.18%	77.52%	3.28	3.41	1.82	3.47
MMS 1988-B3	M4-3	0.13%	6.05%	14.98%	78.50%	3.16	3.43	1.86	3.61
MMS 1988-B3	M4-4	0.00%	3.27%	14.48%	81.88%	2.93	3.47	1.91	3.75
MMS 1988-B3	M4-5	0.00%	10.65%	10.63%	78.46%	2.89	3.44	1.98	4.02
MMS 1988-B3	M4-6	0.00%	3.52%	12.37%	83.87%	2.88	3.51	1.92	3.79
MMS 1988-B3	M4/cgs 1	0.00%	4.42%	13.89%	81.42%	3.14	3.49	1.86	3.56
MMS 1988-B3	M4/cgs 2	0.05%	4.17%	13.80%	81.6[illegible]%	3.06	3.50	1.87	3.61

Sediment Compilation by Cruise

Cruise No.	Sample No.	% Gravel	% Sand	% Silt	% Clay	Mean Phi	Sorting	Skewness	Kurtosis
MMS 1988-B4	C1-1	0.49%	77.95%	2.11%	17.60%	2.21	1.25	3.36	20.15
MMS 1988-B4	C1-2	0.56%	79.66%	2.49%	14.99%	2.30	1.31	3.31	20.00
MMS 1988-B4	C1-3	0.56%	79.59%	2.76%	14.31%	2.34	1.36	3.31	19.02
MMS 1988-B4	C1-4	0.45%	76.42%	2.46%	17.70%	2.29	1.33	3.39	19.18
MMS 1988-B4	C1-5	1.57%	76.64%	4.27%	15.47%	2.36	1.55	2.78	14.58
MMS 1988-B4	C1-6	0.82%	75.53%	3.71%	18.36%	2.22	1.33	2.81	16.00
MMS 1988-B4	C1/cgs	0.73%	77.41%	4.44%	15.91%	2.36	1.52	3.09	15.45
MMS 1988-B4	C2-1	0.10%	20.90%	21.03%	56.61%	3.07	2.95	2.07	4.71
MMS 1988-B4	C2-2	0.05%	16.75%	25.29%	56.50%	2.97	2.77	2.11	4.89
MMS 1988-B4	C2-3	0.15%	19.78%	25.10%	53.56%	2.83	2.67	2.21	5.42
MMS 1988-B4	C2-4	0.41%	17.27%	24.76%	55.93%	3.26	2.97	1.95	4.26
MMS 1988-B4	C2-5	0.14%	18.63%	20.08%	59.75%	3.23	3.02	2.07	4.64
MMS 1988-B4	C2-6	0.15%	19.44%	18.39%	59.27%	2.79	2.82	2.15	4.97
MMS 1988-B4	C2/cgs	0.02%	15.94%	23.43%	59.55%	3.07	2.87	2.06	4.61
MMS 1988-B4	C3-1	0.00%	3.23%	18.54%	78.08%	2.94	3.38	1.95	3.95
MMS 1988-B4	C3-2	0.00%	1.13%	17.51%	81.25%	3.31	3.52	1.82	3.42
MMS 1988-B4	C3-3	0.04%	1.11%	16.53%	82.19%	3.19	3.49	1.86	3.55
MMS 1988-B4	C3-4	0.00%	0.90%	17.79%	81.19%	3.28	3.50	1.83	3.44
MMS 1988-B4	C3-5	0.09%	2.82%	13.94%	82.94%	2.83	3.48	1.98	4.09
MMS 1988-B4	C3-6	0.00%	0.62%	15.71%	83.55%	3.21	3.50	1.86	3.55
MMS 1988-B4	C3/cgs	0.05%	2.08%	18.05%	79.64%	3.18	3.45	1.88	3.66
MMS 1988-B4	C4-1	0.00%	0.14%	14.68%	85.17%	2.70	3.47	1.95	3.90
MMS 1988-B4	C4-2	0.00%	0.21%	13.50%	86.29%	2.71	3.50	1.94	3.86
MMS 1988-B4	C4-3	0.00%	0.10%	14.67%	85.23%	2.57	3.45	1.99	4.09
MMS 1988-B4	C4-4	0.00%	0.11%	13.42%	86.46%	2.36	3.38	2.08	4.44
MMS 1988-B4	C4-5	0.17%	0.12%	15.39%	84.32%	2.80	3.49	1.90	3.75
MMS 1988-B4	C4-6	0.00%	0.23%	15.62%	84.16%	2.84	3.49	1.90	3.73
MMS 1988-B4	C4/cgs	0.00%	0.13%	16.97%	82.90%	2.79	3.43	1.93	3.84
MMS 1988-B4	D1-1	0.15%	91.25%	0.70%	7.83%	1.94	0.74	3.83	40.40
MMS 1988-B4	D1-2	0.00%	92.13%	0.56%	7.20%	1.91	0.73	4.10	40.08
MMS 1988-B4	D1-3	0.04%	91.42%	0.29%	8.18%	1.94	0.75	4.68	46.95
MMS 1988-B4	D1-4	0.10%	92.85%	0.55%	6.48%	1.98	0.80	4.59	45.90
MMS 1988-B4	D1-5	0.00%	92.97%	0.48%	6.47%	1.94	0.68	3.52	34.01

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Sediment Compilation by Cruise

Cruise No.	Sample No.	% Gravel	% Sand	% Silt	% Clay	Mean Phi	Sorting	Skewness	Kurtosis
MMS 1988-B4	D1-6	0.00%	91.02%	0.67%	8.18%	1.84	0.71	3.59	34.28
MMS 1988-B4	D1/cgs	0.03%	93.29%	0.39%	6.18%	1.94	0.68	3.83	42.65
MMS 1988-B4	D2-1	1.88%	88.76%	1.40%	7.88%	1.44	1.34	4.36	30.57
MMS 1988-B4	D2-2	0.73%	89.00%	0.42%	9.76%	1.34	0.85	4.36	46.22
MMS 1988-B4	D2-3	0.03%	89.85%	0.69%	9.29%	1.49	1.08	6.24	50.32
MMS 1988-B4	D2-4	0.61%	92.69%	0.39%	6.27%	1.42	0.94	5.89	57.08
MMS 1988-B4	D2-5	0.51%	89.65%	0.48%	9.32%	1.39	0.66	3.58	47.59
MMS 1988-B4	D2-6	0.87%	88.91%	0.62%	9.51%	1.45	1.15	5.05	37.95
MMS 1988-B4	D2/cgs	0.99%	90.96%	0.27%	7.73%	1.38	0.79	3.94	47.87
MMS 1988-B4	D3-1	19.08%	55.91%	7.04%	17.36%	0.84	2.66	2.11	7.30
MMS 1988-B4	D3-2	8.25%	61.49%	10.39%	18.63%	1.41	2.48	1.86	6.58
MMS 1988-B4	D3-3	8.34%	61.66%	8.14%	21.46%	1.29	2.41	2.14	7.98
MMS 1988-B4	D3-4	13.44%	54.63%	7.75%	23.44%	1.15	2.55	2.09	7.49
MMS 1988-B4	D3-5	8.86%	57.28%	11.00%	19.41%	1.45	2.54	1.74	5.96
MMS 1988-B4	D3-6	17.07%	47.46%	12.33%	21.66%	1.29	2.83	1.70	5.36
MMS 1988-B4	D3/cgs	18.18%	57.94%	6.62%	17.02%	0.59	2.54	2.47	8.92
MMS 1988-B4	D4-1	0.00%	4.94%	32.57%	60.29%	3.70	3.02	1.86	3.71
MMS 1988-B4	D4-2	0.02%	5.35%	33.29%	58.53%	3.72	2.98	1.85	3.68
MMS 1988-B4	D4-3	0.00%	3.65%	30.27%	65.30%	3.45	3.08	1.90	3.86
MMS 1988-B4	D4-4	0.06%	2.76%	28.15%	68.68%	3.13	3.05	1.95	4.06
MMS 1988-B4	D4-5	0.00%	3.07%	26.35%	70.08%	3.29	3.17	1.91	3.84
MMS 1988-B4	D4-6	0.00%	3.44%	43.61%	52.15%	3.41	2.80	1.78	3.36
MMS 1988-B4	D4/cgs	0.00%	6.37%	28.97%	60.90%	3.59	3.07	1.85	3.64
MMS 1988-B4	M1-1	0.69%	68.58%	5.26%	24.53%	2.31	1.67	3.18	14.30
MMS 1988-B4	M1-2	0.38%	74.81%	3.96%	19.88%	2.32	1.45	3.30	16.81
MMS 1988-B4	M1-3	0.87%	71.25%	4.33%	22.05%	2.28	1.58	3.05	14.47
MMS 1988-B4	M1-4	8.01%	56.31%	7.16%	26.43%	2.08	2.21	1.74	7.33
MMS 1988-B4	M1-5	0.20%	60.29%	5.79%	31.43%	2.22	1.84	3.18	12.53
MMS 1988-B4	M1-6	0.43%	53.52%	6.44%	37.76%	2.16	1.90	3.08	11.64
MMS 1988-B4	M1/cgs	0.46%	65.27%	5.67%	27.64%	2.26	1.60	3.20	14.19
MMS 1988-B4	M2-1	0.23%	84.95%	1.63%	13.18%	1.49	0.81	5.09	44.71
MMS 1988-B4	M2-2	0.07%	85.89%	1.21%	12.77%	1.46	0.73	5.77	56.28
MMS 1988-B4	M2-3	0.26%	81.14%	1.58%	16.93%	1.40	0.79	4.93	46.31

Sediment Compilation by Cruise

Cruise No.	Sample No.	% Gravel	% Sand	% Silt	% Clay	Mean Phi	Sorting	Skewness	Kurtosis
MMS 1988-B4	M2-4	0.20%	85.41%	0.88%	13.40%	1.47	0.92	6.49	60.74
MMS 1988-B4	M2-5	1.11%	86.24%	1.30%	11.26%	1.50	0.96	4.73	44.44
MMS 1988-B4	M2-6	0.30%	85.97%	0.73%	12.94%	1.45	0.69	4.01	39.05
MMS 1988-B4	M2/cgs	0.75%	87.44%	1.09%	10.56%	1.49	0.89	5.28	50.35
MMS 1988-B4	M3-1	0.46%	53.63%	6.63%	38.98%	1.85	1.87	3.24	12.65
MMS 1988-B4	M3-2	1.46%	51.65%	6.24%	40.53%	1.82	2.02	3.19	12.87
MMS 1988-B4	M3-3	0.18%	41.33%	8.88%	49.16%	1.90	2.09	2.99	10.49
MMS 1988-B4	M3-4	1.06%	44.19%	7.50%	46.52%	2.06	2.38	2.69	8.59
MMS 1988-B4	M3-5	3.29%	54.32%	7.69%	34.07%	1.98	2.04	2.45	9.63
MMS 1988-B4	M3-6	0.48%	56.30%	6.40%	36.51%	1.91	1.83	3.36	13.95
MMS 1988-B4	M3/cgs	1.19%	69.20%	4.29%	25.11%	2.01	1.67	3.30	15.60
MMS 1988-B4	M4-1	0.00%	3.83%	14.40%	81.54%	2.56	3.27	2.07	4.44
MMS 1988-B4	M4-2	0.09%	4.19%	14.79%	80.84%	2.62	3.32	2.06	4.43
MMS 1988-B4	M4-3	0.00%	8.90%	11.20%	79.58%	2.27	3.19	2.25	5.26
MMS 1988-B4	M4-4	0.00%	4.72%	14.73%	80.36%	2.52	3.24	2.08	4.50
MMS 1988-B4	M4-5	0.05%	4.55%	16.55%	78.44%	2.31	3.11	2.15	4.88
MMS 1988-B4	M4-6	0.00%	4.92%	16.78%	78.06%	2.47	3.19	2.11	4.65
MMS 1988-B4	M4/cgs	0.16%	2.99%	15.53%	81.18%	2.39	3.32	2.08	4.48

Sediment Ancillary

BLANK

PAGE

ANCILLARY SEDIMENT DATA

FILE #	CRUISE	TRANSECT -STATION	TOTAL ORGANIC CARBON (%)	CALCIUM CARBONATE (%)	∂C-13 (per mil)
L 4525	MMS-0	C-1	1.3	8.2	-21.3
L 4526	MMS-0	C-2	0.3	7.1	-20.4
L 4527	MMS-0	C-3	1.3	1.5	-21.2
L 4528	MMS-0	C-4	0.1	2.1	-20.4
L 4529	MMS-0	D-2	0.1	54.0	-19.1
L 4530	MMS-0	D-3	0.9	60.9	-21.5
L 4531	MMS-0	D-4	1.7	43.3	-21.0
L 4532	MMS-0	M-1	0.1	2.4	-25.1
L 4533	MMS-0	M-2	0.2	3.6	-24.0
L 4534	MMS-0	M-3	0.1	14.7	-21.5
L 4535	MMS-0	M-4	0.8	17.6	-20.4
W 6233	MMS-1	C-1	0.7	7.0	-23.4
W 6234	MMS-1	C-2	0.7	2.5	-23.7
W 6235	MMS-1	C-3	1.7	3.2	-23.4
W 6236	MMS-1	C-4	0.8	2.9	-23.3
W 6237	MMS-1	D-1	0.3	0.7	-22.9
W 6238	MMS-1	D-2	0.3	2.5	-23.3
W 6239	MMS-1	D-3	0.2	58.0	-22.3
W 6240	MMS-1	D-4	2.0	53.5	-22.7
W 6241	MMS-1	M-1	0.4	1.4	-24.8
W 6242	MMS-1	M-2	0.2	6.6	-20.5
W 6243	MMS-1	M-3	0.6	16.0	-23.3
W 6244	MMS-1	M-4	1.7	11.0	-23.3
W7734	MMS-2	C-1	0.6	5.6	-21.4
W7735	MMS-2	C-2	1.5	6.8	-23.5
W7736	MMS-2	C-3	1.2	2.9	-23.0
W7737	MMS-2	C-4	1.4	3.0	-22.7
W7738	MMS-2	D-1	0.1	1.2	-24.2
W7739	MMS-2	D-2	0.4	2.1	-20.6
W7740	MMS-2	D-3	0.9	53.3	-23.2
W7741	MMS-2	D-4	3.1	25.9	-22.2
W7742	MMS-2	M-1	0.3	2.9	-24.9
W7743	MMS-2	M-2	0.3	5.2	-23.3
W7744	MMS-2	M-3	0.5	22.5	-21.3
W7745	MMS-2	M-4	1.3	2.0	-21.7

ANCILLARY SEDIMENT DATA

FILE #	CRUISE	TRANSECT -STATION	TOTAL ORGANIC CARBON (%)	CALCIUM CARBONATE (%)	∂C-13 (per mil)
W11535	MMS-3	C-1	0.3	7.4	-22.6
W11536	MMS-3	C-2	0.9	11.4	-21.7
W11537	MMS-3	C-3	1.3	4.0	-21.2
W11538	MMS-3	C-4	1.9	12.3	-22.1
W11539	MMS-3	D-1	< 0.1	0.1	-20.5
W11540	MMS-3	D-2	0.2	45.2	-21.9
W11541	MMS-3	D-3	1.1	78.1	-20.7
W11542	MMS-3	D-4	1.8	72.0	-22.3
W11543	MMS-3	M-1	0.1	0.1	-21.5
W11544	MMS-3	M-2	< 0.1	7.1	-20.5
W11545	MMS-3	M-3	0.6	30.7	-21.3
W11546	MMS-3	M-4	1.5	9.1	-20.9
W12656	MMS-4	C-1	0.2	4.8	-21.3
W12657	MMS-4	C-2	1.0	8.7	-21.3
W12658	MMS-4	C-3	1.3	6.3	-21.1
W12659	MMS-4	C-4	1.5	5.2	-21.6
W12652	MMS-4	D-1	< 0.1	0.2	-19.0
W12653	MMS-4	D-2	< 0.1	2.4	-21.2
W12654	MMS-4	D-3	2.6	80.0	-20.4
W12655	MMS-4	D-4	2.9	84.8	-20.4
W12660	MMS-4	M-1	0.5	6.1	-21.5
W12661	MMS-4	M-2	< 0.1	6.2	-20.7
W12662	MMS-4	M-3	0.2	9.9	-20.8
W12663	MMS-4	M-4	1.7	20.4	-21.1

Appendix B

BIOLOGY

Macroinfauna

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                                  MACROINFAUNA SPECIES FROM CRUISE O BY TRANSECT AND STATION

                                                   TRAN=C STA=1

                                                    PARAMETERS

                                        #OCC     TOTAL     #/OCC      MEAN       MAX       MIN     MIN>O      CUM%

VARIABLE
  1. Nereis micromma                      1        15        15        15        15        15        15     17.241
  2. Asychis elongata                     1         9         9         9         9         9         9     27.586
  3. Aricidea fragilis                    1         8         8         8         8         8         8     36.782
  4. Spiocarcinus lobatus                 1         6         6         6         6         6         6     43.678
  5. Nephtys incisa                       1         6         6         6         6         6         6     50.575
  6. Pectinaria sp                        1         5         5         5         5         5         5     56.322
  7. Lumbrineris verrilli                 1         4         4         4         4         4         4     60.920
  8. Tellina versicolor                   1         3         3         3         3         3         3     64.368
  9. Tauberia oligobranchiata             1         3         3         3         3         3         3     67.816
 10. Paraprionospio pinnata               1         3         3         3         3         3         3     71.264
 11. Ampelisca agassizi                   1         2         2         2         2         2         2     73.563
 12. Pilargis sp                          1         2         2         2         2         2         2     75.862
 13. Cerebratulus lacteus                 1         2         2         2         2         2         2     78.161
 14. Aglaophamus verrilli                 1         1         1         1         1         1         1     79.310
 15. Monoculodes edwardsi                 1         1         1         1         1         1         1     80.460
 16. Nemertea (yellow banded)             1         1         1         1         1         1         1     81.609
 17. Glycera americana                    1         1         1         1         1         1         1     82.759
 18. Haemulon aurolineatum                1         1         1         1         1         1         1     83.908
 19. Turbellaria, eyes around tenta       1         1         1         1         1         1         1     85.057
 20. Goniada littorea                     1         1         1         1         1         1         1     86.207
 21. Photis macromanus                    1         1         1         1         1         1         1     87.356
 22. Drilonereis longa                    1         1         1         1         1         1         1     88.506
 23. Tharyx setigera                      1         1         1         1         1         1         1     89.655
 24. Cirriformia sp                       1         1         1         1         1         1         1     90.805
 25. Ampelisca abdita                     1         1         1         1         1         1         1     91.954
 26. Lumbrineris sp b                     1         1         1         1         1         1         1     93.103
 27. Alpheus floridanus                   1         1         1         1         1         1         1     94.253
 28. Nemertea, 2 purple bands             1         1         1         1         1         1         1     95.402
 29. Aricidea taylori                     1         1         1         1         1         1         1     96.552
 30. Moira atropos                        1         1         1         1         1         1         1     97.701
 31. Ophiophragmus cf pulcher             1         1         1         1         1         1         1     98.851
 32. Polynoidae sp b                      1         1         1         1         1         1         1    100.000


TOTAL # OBSERVATIONS =        1
TOTAL # OCCURRENCES =       32
TOTAL COUNT =       87
CUM% BASED ON TOTAL
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MACROINFAUNA SPECIES FROM CRUISE O BY TRANSECT AND STATION

TRAN=C STA=2

PARAMETERS

VARIABLE	#OCC	TOTAL	#/OCC	MEAN	MAX	MIN	MIN>O	CUM%
1. Notomastus daueri	1	7	7	7	7	7	7	7.292
2. Onuphis sp a	1	7	7	7	7	7	7	14.583
3. Notomastus hemipodus	1	5	5	5	5	5	5	19.792
4. Bivalvia	1	4	4	4	4	4	4	23.958
5. Mooreonuphis cf. nebulosa	1	4	4	4	4	4	4	28.125
6. Talorchestia barabrae	1	3	3	3	3	3	3	31.250
7. Microphiopholis atra	1	3	3	3	3	3	3	34.375
8. Ampelisca agassizi	1	3	3	3	3	3	3	37.500
9. Aglaophamus verrilli	1	3	3	3	3	3	3	40.625
10. Nereis micromma	1	3	3	3	3	3	3	43.750
11. Nassarius acutus	1	3	3	3	3	3	3	46.875
12. Loimia medusa	1	3	3	3	3	3	3	50.000
13. Ophiophragmus cf pulcher	1	2	2	2	2	2	2	52.083
14. Mediomastus californiensis	1	2	2	2	2	2	2	54.167
15. Aricidea fragilis	1	2	2	2	2	2	2	56.250
16. Tharyx cf marioni	1	2	2	2	2	2	2	58.333
17. Paguridae	1	2	2	2	2	2	2	60.417
18. Sthenelanella sp A	1	2	2	2	2	2	2	62.500
19. Amphipoda	1	2	2	2	2	2	2	64.583
20. Donax texasiana	1	2	2	2	2	2	2	66.667
21. Ampelisca abdita	1	2	2	2	2	2	2	68.750
22. Emerita sp (mitchell)	1	2	2	2	2	2	2	70.833
23. Glottidia pyramidata	1	2	2	2	2	2	2	72.917
24. Lucina pectinata	1	1	1	1	1	1	1	73.958
25. Coleoptera b (mitchell)	1	1	1	1	1	1	1	75.000
26. Tauberia oligobranchiata	1	1	1	1	1	1	1	76.042
27. Glycera americana	1	1	1	1	1	1	1	77.083
28. Nephtys incisa	1	1	1	1	1	1	1	78.125
29. Notomastus americanus	1	1	1	1	1	1	1	79.167
30. Chone americana	1	1	1	1	1	1	1	80.208
31. Nemertean	1	1	1	1	1	1	1	81.250
32. Megalomma bioculatum	1	1	1	1	1	1	1	82.292
33. Drilonereis longa	1	1	1	1	1	1	1	83.333
34. Lepidactylus triarticulatus	1	1	1	1	1	1	1	84.375
35. Chaetozone sp (frag)	1	1	1	1	1	1	1	85.417
36. Spilocuma sp	1	1	1	1	1	1	1	86.458
37. Tauberia gracilis	1	1	1	1	1	1	1	87.500
38. Coleoptera c (mitchell)	1	1	1	1	1	1	1	88.542
39. Diplodonta sp	1	1	1	1	1	1	1	89.583
40. Coleoptera a (mitchell)	1	1	1	1	1	1	1	90.625
41. Donax romeri	1	1	1	1	1	1	1	91.667
42. Pinniea cf. sayana	1	1	1	1	1	1	1	92.708
43. Diopatra tridentata	1	1	1	1	1	1	1	93.750
44. Lumbrineris verrilli	1	1	1	1	1	1	1	94.792
45. Phascolion strombi	1	1	1	1	1	1	1	95.833
46. Nemertean (mitchell)	1	1	1	1	1	1	1	96.875
47. Penaeid	1	1	1	1	1	1	1	97.917
48. Lumbrineris impatiens	1	1	1	1	1	1	1	98.958
49. Magelona sp L	1	1	1	1	1	1	1	100.000

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TOTAL # OBSERVATIONS =        1
TOTAL # OCCURRENCES =      49
TOTAL COUNT =       96
CUM% BASED ON TOTAL
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                          MACROINFAUNA SPECIES FROM CRUISE O BY TRANSECT AND STATION

                                              TRAN=C STA=3

                                               PARAMETERS

                                         #OCC    TOTAL    #/OCC    MEAN    MAX    MIN    MIN>O      CUM%

VARIABLE
  1. Notomastus hemipodus                  1       14       14      14      14     14      14      12.844
  2. Ophiophragmus cf pulcher              1       12       12      12      12     12      12      23.853
  3. Lumbrineris verrilli                  1       10       10      10      10     10      10      33.028
  4. Amparete cf. irana heterobranc        1        8        8       8       8      8       8      40.367
  5  Prionospio cf pygmaea                 1        8        8       8       8      8       8      47.706
  6. Lumbrineris sp b                      1        6        6       6       6      6       6      53.211
  7. Alpheus floridanus                    1        5        5       5       5      5       5      57.798
  8. Gerridae (mitchell)                   1        4        4       4       4      4       4      61.468
  9. Notomastus daueri                     1        4        4       4       4      4       4      65.138
 10. Paraprionospio pinnata                1        4        4       4       4      4       4      68.807
 11. Harmothoe sp B                        1        3        3       3       3      3       3      71.560
 12. Tauberia oligobranchiata              1        3        3       3       3      3       3      74.312
 13. Nereis micromma                       1        3        3       3       3      3       3      77.064
 14. Cossura soyeri                        1        3        3       3       3      3       3      79.817
 15. Nephtys incisa                        1        3        3       3       3      3       3      82.569
 16. Armandia maculata                     1        3        3       3       3      3       3      85.321
 17. Aricidea (Aricidea) pseudoarti        1        1        1       1       1      1       1      86.239
 18. Gastropoda                            1        1        1       1       1      1       1      87.156
 19. Tharyx cf marioni                     1        1        1       1       1      1       1      88.073
 20. Nemertea (yellow banded)              1        1        1       1       1      1       1      88.991
 21. Aricidea fragilis                     1        1        1       1       1      1       1      89.908
 22. Nephtys, cryptomma                    1        1        1       1       1      1       1      90.826
 23  Gyptis vitatta                        1        1        1       1       1      1       1      91.743
 24. Sicyonia sp                           1        1        1       1       1      1       1      92.661
 25. Emerita sp (mitchell)                 1        1        1       1       1      1       1      93.578
 26. Mediomastus californiensis            1        1        1       1       1      1       1      94.495
 27. Goneplacidae                          1        1        1       1       1      1       1      95.413
 28. Donax texasiana                       1        1        1       1       1      1       1      96.330
 29. Collembola sp                         1        1        1       1       1      1       1      97.248
 30. Volvulella texasiana                  1        1        1       1       1      1       1      98.165
 31  Glycera sp C                          1        1        1       1       1      1       1      99.083
 32. Talorchestia sp                       1        1        1       1       1      1       1     100.000


TOTAL # OBSERVATIONS =        1
TOTAL # OCCURRENCES =       32
TOTAL COUNT =      109
CUM% BASED ON TOTAL
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                              MACROINFAUNA SPECIES FROM CRUISE O BY TRANSECT AND STATION

                                                   TRAN=C STA=4

                                                    PARAMETERS

                                        #OCC     TOTAL     #/OCC     MEAN     MAX     MIN     MIN>0      CUM%

VARIABLE
  1. Prionospio cf pygmaea                 1        20        20       20      20      20        20    28.571
  2. Lumbrineris verrilli                  1        13        13       13      13      13        13    47.143
  3. Nephtys incisa                        1        10        10       10      10      10        10    61.429
  4. Ophiophragmus cf pulcher              1         4         4        4       4       4         4    67.143
  5. Lumbrineris sp b                      1         3         3        3       3       3         3    71.429
  6. Tharyx cf marioni                     1         3         3        3       3       3         3    75.714
  7. Cossura soyeri                        1         3         3        3       3       3         3    80.000
  8. Collembola sp                         1         3         3        3       3       3         3    84.286
  9. Magelona sp E                         1         2         2        2       2       2         2    87.143
 10. Petaloproctus sp                      1         2         2        2       2       2         2    90.000
 11. Paraprionospio pinnata                1         1         1        1       1       1         1    91.429
 12. Harmothoe sp B                        1         1         1        1       1       1         1    92.857
 13. Donax texasiana                       1         1         1        1       1       1         1    94.286
 14. Amparete cf. irana heterobranc        1         1         1        1       1       1         1    95.714
 15. Armandia maculata                     1         1         1        1       1       1         1    97.143
 16. Magelona sp I                         1         1         1        1       1       1         1    98.571
 17. Spilocuma sp                          1         1         1        1       1       1         1   100.000


TOTAL # OBSERVATIONS =         1
TOTAL # OCCURRENCES =        17
TOTAL COUNT =      70
CUM% BASED ON TOTAL
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                         MACROINFAUNA SPECIES FROM CRUISE O BY TRANSECT AND STATION

                                              TRAN=D STA=1

                                               PARAMETERS

                                       #OCC     TOTAL     #/OCC     MEAN      MAX       MIN     MIN>0      CUM%
VARIABLE
  1. Lumbrineris verrilli                1        7         7         7         7         7        7      20.588
  2. Paraprionospio pinnata              1        4         4         4         4         4        4      32.353
  3. Spiophanes bombyx                   1        3         3         3         3         3        3      41.176
  4. Prionospio cristata                 1        3         3         3         3         3        3      50.000
  5. Ceratocephale oculata               1        2         2         2         2         2        2      55.882
  6. Tauberia oligobranchiata            1        2         2         2         2         2        2      61.765
  7. Armandia maculata                   1        1         1         1         1         1        1      64.706
  8. Nereis micromma                     1        1         1         1         1         1        1      67.647
  9. Decamastus sp A                     1        1         1         1         1         1        1      70.588
 10. Tauberia gracilis                   1        1         1         1         1         1        1      73.529
 11. Nemertea (yellow banded)            1        1         1         1         1         1        1      76.471
 12. Owenia sp A                         1        1         1         1         1         1        1      79.412
 13. Anachis obesa                       1        1         1         1         1         1        1      82.353
 14. Bubble shell                        1        1         1         1         1         1        1      85.294
 15. Anemone (holothuroid like)          1        1         1         1         1         1        1      88.235
 16. Goniadella sp A                     1        1         1         1         1         1        1      91.176
 17. Glycera sp F                        1        1         1         1         1         1        1      94.118
 18. Oligochaeta                         1        1         1         1         1         1        1      97.059
 19. Ampelisca abdita                    1        1         1         1         1         1        1     100.000


TOTAL # OBSERVATIONS =        1
TOTAL # OCCURRENCES =       19
TOTAL COUNT =       34
CUM% BASED ON TOTAL
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                              MACROINFAUNA SPECIES FROM CRUISE O BY TRANSECT AND STATION

                                                    TRAN=D STA=2

                                                     PARAMETERS

                                     #OCC     TOTAL     #/OCC      MEAN      MAX       MIN     MIN>O      CUM%

VARIABLE
  1. Caulleriella cf. zeflandica       1        10        10        10        10        10        10      45.455
  2. Foraminifera                      1         3         3         3         3         3         3      59.091
  3. Paguridae                         1         2         2         2         2         2         2      68.182
  4. Amparete cf. irana heterobranc    1         1         1         1         1         1         1      72.727
  5. Aricidea (Aricidea) pseudoarti    1         1         1         1         1         1         1      77.273
  6. Minuspio sp A                     1         1         1         1         1         1         1      81.818
  7. Malacoceros vanderhorsti          1         1         1         1         1         1         1      86.364
  8. Spiophanes sp                     1         1         1         1         1         1         1      90.909
  9. Chone americana                   1         1         1         1         1         1         1      95.455
 10. Prionospio cf pygmaea             1         1         1         1         1         1         1     100.000


TOTAL # OBSERVATIONS =        1
TOTAL # OCCURRENCES =       10
TOTAL COUNT =       22
CUM% BASED ON TOTAL
```

MACROINFAUNA SPECIES FROM CRUISE O BY TRANSECT AND STATION

TRAN=D STA=3

PARAMETERS

VARIABLE	#OCC	TOTAL	#/OCC	MEAN	MAX	MIN	MIN>0	CUM%
1. Paraprionospio pinnata	1	18	18	18	18	18	18	11.465
2. Sigambra tentaculata	1	17	17	17	17	17	17	22.293
3. Tharyx cf marioni	1	14	14	14	14	14	14	31.210
4. Golfingia cf trichocephala	1	11	11	11	11	11	11	38.217
5. Ophiophragmus cf pulcher	1	10	10	10	10	10	10	44.586
6. Paralacydonia paradoxa	1	10	10	10	10	10	10	50.955
7. Nematoda	1	7	7	7	7	7	7	55.414
8. Cossura soyeri	1	6	6	6	6	6	6	59.236
9. Pseudeurythoe paucibranchiata	1	6	6	6	6	6	6	63.057
10. Mooreonuphis pallidula	1	5	5	5	5	5	5	66.242
11. Ninoe sp B	1	4	4	4	4	4	4	68.790
12. Ampharete americana	1	3	3	3	3	3	3	70.701
13. Shrimp	1	2	2	2	2	2	2	71.975
14. Nephtys incisa	1	2	2	2	2	2	2	73.248
15. Aricidea (Acmira) cerrutii	1	2	2	2	2	2	2	74.522
16. Onuphis sp a	1	2	2	2	2	2	2	75.796
17. Bryozoan	1	2	2	2	2	2	2	77.070
18. Notomastus hemipodus	1	2	2	2	2	2	2	78.344
19. Microphiopholis atra	1	2	2	2	2	2	2	79.618
20. Prionospio cf pygmaea	1	2	2	2	2	2	2	80.892
21. Axiothella mucosa	1	2	2	2	2	2	2	82.166
22. Telothelepus cf. capensis	1	1	1	1	1	1	1	82.803
23. Malacoceros vanderhorsti	1	1	1	1	1	1	1	83.439
24. Aricidea (Aricidea) pseudoarti	1	1	1	1	1	1	1	84.076
25. Tauberia oligobranchiata	1	1	1	1	1	1	1	84.713
26. Coleoptera a (mitchell)	1	1	1	1	1	1	1	85.350
27. Tanaidacea	1	1	1	1	1	1	1	85.987
28. Notomastus daueri	1	1	1	1	1	1	1	86.624
29. Aricidea (Allia) trilobita	1	1	1	1	1	1	1	87.261
30. Lumbrineris impatiens	1	1	1	1	1	1	1	87.898
31. Magelona sp I	1	1	1	1	1	1	1	88.535
32. Polyodontes lupina	1	1	1	1	1	1	1	89.172
33. Decamastus sp A	1	1	1	1	1	1	1	89.809
34. Sigambra sp	1	1	1	1	1	1	1	90.446
35. Axiothella sp A	1	1	1	1	1	1	1	91.083
36. Tharyx cf. annulosus	1	1	1	1	1	1	1	91.720
37. Lumbrineris sp E	1	1	1	1	1	1	1	92.357
38. Lumbrineris verrilli	1	1	1	1	1	1	1	92.994
39. Loimia medusa	1	1	1	1	1	1	1	93.631
40. Harmothoe sp B	1	1	1	1	1	1	1	94.268
41. Decamastus cf. gracilis	1	1	1	1	1	1	1	94.904
42. Anaitides mucosa	1	1	1	1	1	1	1	95.541
43. Ancistrosyllis cf groenlandica	1	1	1	1	1	1	1	96.178
44. Kinbergonuphis sp A	1	1	1	1	1	1	1	96.815
45. Euclymene sp B	1	1	1	1	1	1	1	97.452
46. Eunicidae	1	1	1	1	1	1	1	98.089
47. Capitellidae (frag)	1	1	1	1	1	1	1	98.726
48. Litocorsa cf stremma	1	1	1	1	1	1	1	99.363
49. Aricidea (Aricidea) longicirra	1	1	1	1	1	1	1	100.000

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TOTAL # OBSERVATIONS =        1
TOTAL # OCCURRENCES =       49
TOTAL COUNT =      157
CUM% BASED ON TOTAL
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                                MACROINFAUNA SPECIES FROM CRUISE O BY TRANSECT AND STATION

                                                     TRAN=D STA=4

                                                      PARAMETERS

                                         #OCC     TOTAL     #/OCC      MEAN       MAX       MIN     MIN>O      CUM%

VARIABLE
  1. Paralacydonia paradoxa                 1        11        11        11        11        11        11    15.714
  2. Nephtys incisa                         1         8         8         8         8         8         8    27.143
  3. Prionospio cf pygmaea                  1         6         6         6         6         6         6    35.714
  4. Axiothella sp A                        1         5         5         5         5         5         5    42.857
  5. Tharyx cf marioni                      1         4         4         4         4         4         4    48.571
  6. Paraprionospio pinnata                 1         3         3         3         3         3         3    52.857
  7. Sarsonuphis hartmanae                  1         3         3         3         3         3         3    57.143
  8. Axiothella mucosa                      1         2         2         2         2         2         2    60.000
  9. Sicyonia sp                            1         2         2         2         2         2         2    62.857
 10. Phoxocephalidae                        1         2         2         2         2         2         2    65.714
 11. Telothelepus cf. capensis              1         2         2         2         2         2         2    68.571
 12. Lumbrineris impatiens                  1         1         1         1         1         1         1    70.000
 13. Eurythoe sp                            1         1         1         1         1         1         1    71.429
 14. Aplacophora                            1         1         1         1         1         1         1    72.857
 15. Armandia maculata                      1         1         1         1         1         1         1    74.286
 16. Gyptis vitatta                         1         1         1         1         1         1         1    75.714
 17. Shrimp                                 1         1         1         1         1         1         1    77.143
 18. Ninoe sp B                             1         1         1         1         1         1         1    78.571
 19. Spiophares cf. missionensis            1         1         1         1         1         1         1    80.000
 20. Notomastus americanus                  1         1         1         1         1         1         1    81.429
 21. Anaitides mucosa                       1         1         1         1         1         1         1    82.857
 22. Tauberia reducta                       1         1         1         1         1         1         1    84.286
 23. Oligochaeta                            1         1         1         1         1         1         1    85.714
 24. Ampelisca abdita                       1         1         1         1         1         1         1    87.143
 25. Microphiopholis atra                   1         1         1         1         1         1         1    88.571
 26. Harmothoe sp B                         1         1         1         1         1         1         1    90.000
 27. Magelona sp I                          1         1         1         1         1         1         1    91.429
 28. Ancistrosyllis cf groenlandica         1         1         1         1         1         1         1    92.857
 29. Lumbrineris sp b                       1         1         1         1         1         1         1    94.286
 30. Cerebratulus lacteus                   1         1         1         1         1         1         1    95.714
 31. Bryozoan col.                          1         1         1         1         1         1         1    97.143
 32. Ampelisca agassizi                     1         1         1         1         1         1         1    98.571
 33. Golfingia cf trichocephala             1         1         1         1         1         1         1   100.000


TOTAL # OBSERVATIONS =        1
TOTAL # OCCURRENCES =       33
TOTAL COUNT =      70
CUM% BASED ON TOTAL
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MACROINFAUNA SPECIES FROM CRUISE O BY TRANSECT AND STATION

TRAN=M STA=1

PARAMETERS

VARIABLE	#OCC	TOTAL	#/OCC	MEAN	MAX	MIN	MIN>O	CUM%
1. Lumbrineris verrilli	1	75	75	75	75	75	75	21.739
2. Coleoptera a (mitchell)	1	35	35	35	35	35	35	31.884
3. Paraprionospio pinnata	1	20	20	20	20	20	20	37.681
4. Spiophanes bombyx	1	20	20	20	20	20	20	43.478
5. Aglaophamus verrilli	1	18	18	18	18	18	18	48.696
6. Tauberia oligobranchiata	1	18	18	18	18	18	18	53.913
7. Ceratocephale oculata	1	16	16	16	16	16	16	58.551
8. Mediomastus californiensis	1	14	14	14	14	14	14	62.609
9. Exogone dispar	1	10	10	10	10	10	10	65.507
10. Sthenelanella sp A	1	8	8	8	8	8	8	67.826
11. Goniada littorea	1	8	8	8	8	8	8	70.145
12. Glottidia pyramidata	1	7	7	7	7	7	7	72.174
13. Prionospio fallax	1	6	6	6	6	6	6	73.913
14. Tharyx setigera	1	6	6	6	6	6	6	75.652
15. Macoma sp	1	6	6	6	6	6	6	77.391
16. Microspio pigmentata	1	6	6	6	6	6	6	79.130
17. Armandia maculata	1	5	5	5	5	5	5	80.580
18. Prionospio cristata	1	4	4	4	4	4	4	81.739
19. Aricidea cf. pseudoarticulata	1	4	4	4	4	4	4	82.899
20. Tharyx cf marioni	1	4	4	4	4	4	4	84.058
21. Nereis micromma	1	4	4	4	4	4	4	85.217
22. Xenanthurz brevitelson	1	4	4	4	4	4	4	86.377
23. Amparete cf. irana heterobranc	1	3	3	3	3	3	3	87.246
24. Goniadella sp A	1	2	2	2	2	2	2	87.826
25. Aricidea fragilis	1	2	2	2	2	2	2	88.406
26. Ampelisca abdita	1	2	2	2	2	2	2	88.986
27. Prionospio cf pygmaea	1	2	2	2	2	2	2	89.565
28. Lumbrineris sp b	1	2	2	2	2	2	2	90.145
29. Malacoceros vanderhorsti	1	2	2	2	2	2	2	90.725
30. Asychis elongata	1	2	2	2	2	2	2	91.304
31. Magelona sp E	1	2	2	2	2	2	2	91.884
32. Spiophanes cf. wigley	1	1	1	1	1	1	1	92.174
33. Drilonereis longa	1	1	1	1	1	1	1	92.464
34. Anaitides groenlandica	1	1	1	1	1	1	1	92.754
35. Myriowenia californiensis	1	1	1	1	1	1	1	93.043
36. Bivalvia	1	1	1	1	1	1	1	93.333
37. Hemipodus sp	1	1	1	1	1	1	1	93.623
38. Harmothoe sp B	1	1	1	1	1	1	1	93.913
39. Notomastus lobatus	1	1	1	1	1	1	1	94.203
40. Magelona sp I	1	1	1	1	1	1	1	94.493
41. Gyptis brevipalpa	1	1	1	1	1	1	1	94.783
42. Tharyx cf. annulosus	1	1	1	1	1	1	1	95.072
43. Euceramus praelongus	1	1	1	1	1	1	1	95.362
44. Chaetozone sp C	1	1	1	1	1	1	1	95.652
45. Diopatra cuprea	1	1	1	1	1	1	1	95.942
46. Oligochaeta	1	1	1	1	1	1	1	96.232
47. Phascolion strombi	1	1	1	1	1	1	1	96.522
48. Anaitides mucosa	1	1	1	1	1	1	1	96.812
49. Euchone cf. southern	1	1	1	1	1	1	1	97.101
50. Sigambra tentaculata	1	1	1	1	1	1	1	97.391
51. Nemertea (yellow banded)	1	1	1	1	1	1	1	97.681
52. Glycera americana	1	1	1	1	1	1	1	97.971

53. Bryozoan (encrusting)	1	1	1	1	1	1	1	98.261
54. Owenia cf. fusiformis	1	1	1	1	1	1	1	98.551
55. Glycera sp F	1	1	1	1	1	1	1	98.841
56. Notomastus tenuis	1	1	1	1	1	1	1	99.130
57. Tauberia oculata	1	1	1	1	1	1	1	99.420
58. Goniada cf. brunnea	1	1	1	1	1	1	1	99.710
59. Solem	1	1	1	1	1	1	1	100.000

TOTAL # OBSERVATIONS = 1
TOTAL # OCCURRENCES = 59
TOTAL COUNT = 345
CUM% BASED ON TOTAL

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                                MACROINFAUNA SPECIES FROM CRUISE O BY TRANSECT AND STATION

                                                      TRAN=M STA=2

                                                       PARAMETERS

                                    #OCC      TOTAL     #/OCC      MEAN      MAX       MIN      MIN>O      CUM%

VARIABLE
  1. Mediomastus californiensis       1        18        18        18        18        18        18       21.176
  2. Laonice cirrata                  1         7         7         7         7         7         7       29.412
  3. Lumbrineris verrilli             1         5         5         5         5         5         5       35.294
  4. Scoloplos acmeceps               1         4         4         4         4         4         4       40.000
  5. Nassarius acutus                 1         4         4         4         4         4         4       44.706
  6. Armandia agilis                  1         3         3         3         3         3         3       48.235
  7. Axiothella sp                    1         3         3         3         3         3         3       51.765
  8. Haemulon aurolineatum            1         2         2         2         2         2         2       54.118
  9. Paraprionospio pinnata           1         2         2         2         2         2         2       56.471
 10. Bulla-like opisthobranch         1         2         2         2         2         2         2       58.824
 11. Bocardiella sp A                 1         2         2         2         2         2         2       61.176
 12. Donax texasiana                  1         2         2         2         2         2         2       63.529
 13. Wacerera                         1         2         2         2         2         2         2       65.882
 14. Harmothoe sp B                   1         2         2         2         2         2         2       68.235
 15. Hydroides protulicula            1         1         1         1         1         1         1       69.412
 16. Paguridae                        1         1         1         1         1         1         1       70.588
 17. Ceratocephale oculata            1         1         1         1         1         1         1       71.765
 18. Malacoceros vanderhorsti         1         1         1         1         1         1         1       72.941
 19. Schistomeringos cf rudolphi      1         1         1         1         1         1         1       74.118
 20. Ostracoda                        1         1         1         1         1         1         1       75.294
 21. Armandia maculata                1         1         1         1         1         1         1       76.471
 22. Phascolion strombi               1         1         1         1         1         1         1       77.647
 23. Pinniaz lunzi                    1         1         1         1         1         1         1       78.824
 24. Nemertean                        1         1         1         1         1         1         1       80.000
 25. Lumbrineris sp D                 1         1         1         1         1         1         1       81.176
 26. Nereis micromma                  1         1         1         1         1         1         1       82.353
 27. Nemertea (yellow banded)         1         1         1         1         1         1         1       83.529
 28. Aspidosiphon                     1         1         1         1         1         1         1       84.706
 29. Oligochaeta                      1         1         1         1         1         1         1       85.882
 30. Chone americana                  1         1         1         1         1         1         1       87.059
 31. Prionospio fallax                1         1         1         1         1         1         1       88.235
 32. Exogone dispar                   1         1         1         1         1         1         1       89.412
 33. Amparete cf. irana heterobranc   1         1         1         1         1         1         1       90.588
 34. Notomastus daueri                1         1         1         1         1         1         1       91.765
 35. Aricidea (Acmira) philbinae      1         1         1         1         1         1         1       92.941
 36. Microphiopholis atra             1         1         1         1         1         1         1       94.118
 37. Glycera americana                1         1         1         1         1         1         1       95.294
 38. Minuspio sp A                    1         1         1         1         1         1         1       96.471
 39. Magelona sp E                    1         1         1         1         1         1         1       97.647
 40. Xenanthurz brevitelson           1         1         1         1         1         1         1       98.824
 41. Goniada littorea                 1         1         1         1         1         1         1      100.000


TOTAL # OBSERVATIONS =       1
TOTAL # OCCURRENCES =      41
TOTAL COUNT =      85
CUM% BASED ON TOTAL
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MACROINFAUNA SPECIES FROM CRUISE O BY TRANSECT AND STATION

TRAN=M STA=3

PARAMETERS

VARIABLE	#OCC	TOTAL	#/OCC	MEAN	MAX	MIN	MIN>0	CUM%
1. Mediomastus californiensis	1	26	26	26	26	26	26	15.116
2. Paraprionospio pinnata	1	24	24	24	24	24	24	29.070
3 Tharyx cf marioni	1	8	8	8	8	8	8	33.721
4. Mooreonuphis pallidula	1	7	7	7	7	7	7	37.791
5. Loimia medusa	1	7	7	7	7	7	7	41.860
6. Marphysa belli	1	6	6	6	6	6	6	45.349
7. Aglaophamus verrilli	1	6	6	6	6	6	6	48.837
8. Harmothoe sp B	1	5	5	5	5	5	5	51.744
9. Onuphis sp a	1	4	4	4	4	4	4	54.070
10. Macoma tenta	1	4	4	4	4	4	4	56.395
11. Prionospio fallax	1	4	4	4	4	4	4	58.721
12. Cerebratulus lacteus	1	3	3	3	3	3	3	60.465
13. Foraminifera	1	3	3	3	3	3	3	62.209
14. Tauberia oligobranchiata	1	3	3	3	3	3	3	63.953
15. Nephtys, cryptomma	1	3	3	3	3	3	3	65.698
16. Barantolla sp A	1	3	3	3	3	3	3	67.442
17. Spiophanes sp	1	3	3	3	3	3	3	69.186
18. Phascolion strombi	1	3	3	3	3	3	3	70.930
19. Anaitides mucosa	1	2	2	2	2	2	2	72.093
20. Clymenella torquata calida	1	2	2	2	2	2	2	73.256
21. Lumbrineris sp C	1	2	2	2	2	2	2	74.419
22. Nemertea, 2 purple bands	1	2	2	2	2	2	2	75.581
23. Cossura sp A	1	2	2	2	2	2	2	76.744
24. Aricidea fragilis	1	2	2	2	2	2	2	77.907
25. Golfingia cf trichocephala	1	2	2	2	2	2	2	79.070
26. Oxyurostylis smithi	1	2	2	2	2	2	2	80.233
27. Ampelisca abdita	1	1	1	1	1	1	1	80.814
28. Lumbrineris impatiens	1	1	1	1	1	1	1	81.395
29. Tachytrypane jeffreysii	1	1	1	1	1	1	1	81.977
30. Lovenella grandis	1	1	1	1	1	1	1	82.558
31. Prionospio (Minuspio) sp	1	1	1	1	1	1	1	83.140
32. Aricidea (Aricidea) pseudoarti	1	1	1	1	1	1	1	83.721
33. Chaetozone sp A	1	1	1	1	1	1	1	84.302
34. Gyptis vitatta	1	1	1	1	1	1	1	84.884
35. Lumbrineris ernesti	1	1	1	1	1	1	1	85.465
36. Nuculana sp	1	1	1	1	1	1	1	86.047
37 Kinbergonuphis sp A	1	1	1	1	1	1	1	86.628
38. Lumbrineris latrielli	1	1	1	1	1	1	1	87.209
39. Haemulon aurolineatum	1	1	1	1	1	1	1	87.791
40. Paguridae	1	1	1	1	1	1	1	88.372
41. Maldane sp	1	1	1	1	1	1	1	88.953
42. Sthenelanella sp A	1	1	1	1	1	1	1	89.535
43. Phylo felix	1	1	1	1	1	1	1	90.116
44. Exogone dispar	1	1	1	1	1	1	1	90.698
45. Ostracoda	1	1	1	1	1	1	1	91.279
46. Donax texasiana	1	1	1	1	1	1	1	91.860
47. Tanaidacea	1	1	1	1	1	1	1	92.442
48. Microphiopholis atra	1	1	1	1	1	1	1	93.023
49. Ceratocephale oculata	1	1	1	1	1	1	1	93.605
50. Sigambra tentaculata	1	1	1	1	1	1	1	94.186
51. Paralacydonia paradoxa	1	1	1	1	1	1	1	94.767
52. Lumbrineris sp b	1	1	1	1	1	1	1	95.349

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 53. Aricidea (Acmira) cerrutii          1        1        1        1        1        1        1      95.930
 54. Notomastus americanus               1        1        1        1        1        1        1      96.512
 55. Notomastus hemipodus                1        1        1        1        1        1        1      97.093
 56. Nereis grayi                        1        1        1        1        1        1        1      97.674
 57. Anemone (holothuroid like)          1        1        1        1        1        1        1      98.256
 58. Ancistrosyllis sp a                 1        1        1        1        1        1        1      98.837
 59. Echiuroidea cf thalassema           1        1        1        1        1        1        1      99.419
 60. Nemertea (yellow banded)            1        1        1        1        1        1        1     100.000

TOTAL # OBSERVATIONS =       1
TOTAL # OCCURRENCES =      60
TOTAL COUNT =      172
CUM% BASED ON TOTAL
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                         MACROINFAUNA SPECIES FROM CRUISE O BY TRANSECT AND STATION

                                           TRAN=M STA=4

                                            PARAMETERS

                                     #OCC    TOTAL    #/OCC    MEAN    MAX    MIN    MIN>O     CUM%

VARIABLE
  1. Paraprionospio pinnata            1       17       17       17     17     17      17     15.741
  2. Nephtys incisa                    1       16       16       16     16     16      16     30.556
  3. Lumbrineris verrilli              1       13       13       13     13     13      13     42.593
  4. Armandia maculata                 1        8        8        8      8      8       8     50.000
  5. Cerebratulus lacteus              1        7        7        7      7      7       7     56.481
  6. Axiothella sp A                   1        5        5        5      5      5       5     61.111
  7. Tharyx cf marioni                 1        5        5        5      5      5       5     65.741
  8. Paralacydonia paradoxa            1        4        4        4      4      4       4     69.444
  9. Prionospio cf pygmaea             1        3        3        3      3      3       3     72.222
 10. Nemertean                         1        2        2        2      2      2       2     74.074
 11. Telothelepus cf. capensis         1        2        2        2      2      2       2     75.926
 12. Prionospio fallax                 1        2        2        2      2      2       2     77.778
 13. Harmothoe sp B                    1        2        2        2      2      2       2     79.630
 14. Spiophanes sp                     1        2        2        2      2      2       2     81.481
 15. Sigambra tentaculata              1        2        2        2      2      2       2     83.333
 16. Talorchestia sp                   1        1        1        1      1      1       1     84.259
 17. Nemertea (yellow banded)          1        1        1        1      1      1       1     85.185
 18. Sicyonia sp                       1        1        1        1      1      1       1     86.111
 19. Foraminifera                      1        1        1        1      1      1       1     87.037
 20. Gyptis vitatta                    1        1        1        1      1      1       1     87.963
 21. Bryozoan                          1        1        1        1      1      1       1     88.889
 22. Ancistrosyllis papillosa          1        1        1        1      1      1       1     89.815
 23. Oxyurostylis salinoi              1        1        1        1      1      1       1     90.741
 24. Anaitides mucosa                  1        1        1        1      1      1       1     91.667
 25. Ancistrosyllis cf groenlandica    1        1        1        1      1      1       1     92.593
 26. Cossura soyeri                    1        1        1        1      1      1       1     93.519
 27. Kinbergonuphis sp A               1        1        1        1      1      1       1     94.444
 28. Golfingia                         1        1        1        1      1      1       1     95.370
 29. Aricidea (Aricidea) pseudoarti    1        1        1        1      1      1       1     96.296
 30. Petaloproctus sp                  1        1        1        1      1      1       1     97.222
 31. Polyodontes lupina                1        1        1        1      1      1       1     98.148
 32. Magelona sp E                     1        1        1        1      1      1       1     99.074
 33. Lumbrineris sp b                  1        1        1        1      1      1       1    100.000


TOTAL # OBSERVATIONS =        1
TOTAL # OCCURRENCES =        33
TOTAL COUNT =      108
CUM% BASED ON TOTAL

SORT BASED ON #OCC     AND TOTAL
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Macroepifauna

Cruise 0 and 1

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                         BENTHIC EPIFAUNA OCCURENCE BY CRUISE, TRANSECT, AND STATION

                                           CRU=87BO TRAN=C STA=1

                                              PARAMETERS

                                       #OCC      TOTAL      #/OCC       MEAN        MAX        MIN      MIN>O       CUM%

VARIABLE
  1. Trachypenaeus constrictus            1      12653      12653      12653      12653      12653      12653     39.732
  2. Squilla empusa                       1       4993       4993       4993       4993       4993       4993     55.410
  3. Sicyonia dorsalis                    1       2830       2830       2830       2830       2830       2830     64.297
  4. Portunus gibbesii                    1       2135       2135       2135       2135       2135       2135     71.001
  5. Callinectes similis                  1       1956       1956       1956       1956       1956       1956     77.143
  6. Cantharius cancellarius              1       1878       1878       1878       1878       1878       1878     83.040
  7. Astropecten duplicatus               1       1624       1624       1624       1624       1624       1624     88.140
  8. Penaeus aztecus                      1        834        834        834        834        834        834     90.759
  9. Luidia clathrata                     1        521        521        521        521        521        521     92.395
 10. Hepatus epheliticus                  1        402        402        402        402        402        402     93.657
 11. Loligo pealei                        1        392        392        392        392        392        392     94.888
 12. Portunus sayi                        1        341        341        341        341        341        341     95.959
 13. Libinia emarginata                   1        284        284        284        284        284        284     96.850
 14. Distorsio clathrata                  1        269        269        269        269        269        269     97.695
 15. Solenocera atlanticus                1        242        242        242        242        242        242     98.455
 16. Loligo plei                          1        150        150        150        150        150        150     98.926
 17. Bunodactis texaensis                 1        148        148        148        148        148        148     99.391
 18. Crepidula plana                      1         52         52         52         52         52         52     99.554
 19. Pagurus bonairensis                  1         32         32         32         32         32         32     99.655
 20. Portunus spinimanus                  1         27         27         27         27         27         27     99.739
 21. Pagurus bullisi                      1         23         23         23         23         23         23     99.812
 22. Pagurus longicarpus                  1         22         22         22         22         22         22     99.881
 23. Podochela sidneyi                    1         14         14         14         14         14         14     99.925
 24. Architectonica nobilis               1         13         13         13         13         13         13     99.965
 25. Mesorhoea sexispinosa                1          7          7          7          7          7          7     99.987
 26. Speocarcinus carloinensis            1          4          4          4          4          4          4    100.000


TOTAL # OBSERVATIONS =        1
TOTAL # OCCURRENCES =        26
TOTAL COUNT =   31846
CUM% BASED ON TOTAL
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                                   BENTHIC EPIFAUNA OCCURENCE BY CRUISE, TRANSECT, AND STATION

                                                  CRU=8780 TRAN=C STA=2

                                                       PARAMETERS

                                     #OCC      TOTAL     #/OCC      MEAN       MAX       MIN     MIN>O      CUM%
VARIABLE
  1. Squilla edentata edentata          1     3744.0    3744.0    3744.0    3744.0    3744.0    3744.0    24.646
  2. Trachypenaeus constrictus          1     2637.0    2637.0    2637.0    2637.0    2637.0    2637.0    42.005
  3. Callinectes similis                1     1863.0    1863.0    1863.0    1863.0    1863.0    1863.0    54.269
  4. Solenocera vioscai                 1     1556.0    1556.0    1556.0    1556.0    1556.0    1556.0    64.512
  5. Parapenaeus politus                1     1064.0    1064.0    1064.0    1064.0    1064.0    1064.0    71.516
  6. Squilla empusa                     1      791.0     791.0     791.0     791.0     791.0     791.0    76.723
  7. Penaeus aztecus                    1      710.0     710.0     710.0     710.0     710.0     710.0    81.397
  8. Loligo sp.                         1      531.0     531.0     531.0     531.0     531.0     531.0    84.892
  9. Astropecten duplicatus             1      283.0     283.0     283.0     283.0     283.0     283.0    86.755
 10. Tethaster grandis                  1      274.5     274.5     274.5     274.5     274.5     274.5    88.562
 11. Loligo pealei                      1      255.0     255.0     255.0     255.0     255.0     255.0    90.241
 12. Portunus spinicarpus               1      236.0     236.0     236.0     236.0     236.0     236.0    91.794
 13. Sicyonia burkenroadi               1      124.0     124.0     124.0     124.0     124.0     124.0    92.611
 14. Stenorhynchus seticornis           1      122.5     122.5     122.5     122.5     122.5     122.5    93.417
 15. Hepatus epheliticus                1      112.0     112.0     112.0     112.0     112.0     112.0    94.154
 16. Nibilia antilocapra                1      109.0     109.0     109.0     109.0     109.0     109.0    94.872
 17. Libinia emarginata                 1       92.0      92.0      92.0      92.0      92.0      92.0    95.478
 18. Xenophora conchiliophora           1       81.0      81.0      81.0      81.0      81.0      81.0    96.011
 19. Porcellana sigsbeiana              1       67.0      67.0      67.0      67.0      67.0      67.0    96.452
 20. Leiolamburs nitidus                1       64.0      64.0      64.0      64.0      64.0      64.0    96.873
 21. Munida forceps                     1       57.0      57.0      57.0      57.0      57.0      57.0    97.248
 22. Raninoides louisianensis           1       50.0      50.0      50.0      50.0      50.0      50.0    97.578
 23. Symalpheus townsendi               1       44.0      44.0      44.0      44.0      44.0      44.0    97.867
 24. Porcellana sayana                  1       43.0      43.0      43.0      43.0      43.0      43.0    98.150
 25. Stenopus hispidus                  1       35.0      35.0      35.0      35.0      35.0      35.0    98.381
 26. Distorsio clathrata                1       35.0      35.0      35.0      35.0      35.0      35.0    98.611
 27. Argopecten nucleus                 1       33.0      33.0      33.0      33.0      33.0      33.0    98.828
 28. Portunus spinimanus                1       30.0      30.0      30.0      30.0      30.0      30.0    99.026
 29. Stenocionops furcata               1       28.0      28.0      28.0      28.0      28.0      28.0    99.210
 30. Callapa sulcata                    1       24.0      24.0      24.0      24.0      24.0      24.0    99.368
 31. Portunus sayi                      1       19.0      19.0      19.0      19.0      19.0      19.0    99.493
 32. Podochela riisei                   1       18.0      18.0      18.0      18.0      18.0      18.0    99.612
 33. Muret florifer dilectus            1       15.0      15.0      15.0      15.0      15.0      15.0    99.710
 34. Sicyonia brevirostris              1       15.0      15.0      15.0      15.0      15.0      15.0    99.809
 35. Anasimus latus                     1       14.0      14.0      14.0      14.0      14.0      14.0    99.901
 36. Inachoides forceps                 1        6.0       6.0       6.0       6.0       6.0       6.0    99.941
 37. Pagurus bullisi                    1        6.0       6.0       6.0       6.0       6.0       6.0    99.980
 38. Nanoplax xanthiformis              1        3.0       3.0       3.0       3.0       3.0       3.0   100.000

TOTAL # OBSERVATIONS =        1
TOTAL # OCCURRENCES =        38
TOTAL COUNT =    15191
CUM% BASED ON TOTAL
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                                   BENTHIC EPIFAUNA OCCURENCE BY CRUISE, TRANSECT, AND STATION

                                                CRU=8780 TRAN=C STA=3

                                                     PARAMETERS

                                      #OCC      TOTAL     #/OCC      MEAN       MAX       MIN     MIN>0      CUM%

VARIABLE
   1. Parapenaeus politus               1      54081     54081     54081     54081     54081     54081    58.841
   2. Brissopsis alta                   1      15163     15163     15163     15163     15163     15163    75.338
   3. Plesionika tenuipes               1       8617      8617      8617      8617      8617      8617    84.713
   4. Brissopsis atlantica elongata     1       3027      3027      3027      3027      3027      3027    88.007
   5. Anasimus latus                    1       2344      2344      2344      2344      2344      2344    90.557
   6. Squilla chydaea                   1       1850      1850      1850      1850      1850      1850    92.570
   7. Sicyonia burkenroadi              1       1810      1810      1810      1810      1810      1810    94.539
   8. Solenocera vioscai                1       1395      1395      1395      1395      1395      1395    96.057
   9. Portunus spinicarpus              1        828       828       828       828       828       828    96.958
  10. Loligo pealei                     1        612       612       612       612       612       612    97.624
  11. Munida pusilla                    1        330       330       330       330       330       330    97.983
  12. Polystira tellea                  1        232       232       232       232       232       232    98.235
  13. Rossia tenera                     1        225       225       225       225       225       225    98.480
  14. Raninoides louisianensis          1        194       194       194       194       194       194    98.691
  15. Eurypanopeus abbreviatus          1        147       147       147       147       147       147    98.851
  16. Solenocera necopina               1        144       144       144       144       144       144    99.008
  17. Stenopus scutellatus              1        104       104       104       104       104       104    99.121
  18. Nibilia antilocapra               1        103       103       103       103       103       103    99.233
  19. Alpheus floridanus                1         97        97        97        97        97        97    99.338
  20. Petrochirus diogenes              1         95        95        95        95        95        95    99.442
  21. Astropecten duplicatus            1         93        93        93        93        93        93    99.543
  22. Scyllarus depressus               1         84        84        84        84        84        84    99.634
  23. Parapandalus longicauda           1         73        73        73        73        73        73    99.714
  24. Processa hemphilli                1         63        63        63        63        63        63    99.782
  25. Ethusa microphthalma              1         60        60        60        60        60        60    99.848
  26. Glyptoplax smithii                1         44        44        44        44        44        44    99.896
  27. Speocaranus lobatus               1         30        30        30        30        30        30    99.928
  28. Panopeus herbstii                 1         19        19        19        19        19        19    99.949
  29. Polystira albida                  1         18        18        18        18        18        18    99.968
  30. Porcellana sayana                 1         13        13        13        13        13        13    99.983
  31. Alpheus amblyonyx                 1         12        12        12        12        12        12    99.996
  32. Pagurus bullisi                   1          4         4         4         4         4         4   100.000


TOTAL # OBSERVATIONS =        1
TOTAL # OCCURRENCES =       32
TOTAL COUNT =   91911
CUM% BASED ON TOTAL
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                         BENTHIC EPIFAUNA OCCURENCE BY CRUISE, TRANSECT, AND STATION

                                          CRU=8780 TRAN=C STA=4

                                               PARAMETERS

                                     #OCC      TOTAL      #/OCC        MEAN        MAX        MIN      MIN>0        CUM%

VARIABLE
  1. Brissopsis alta                  1        22718      22718       22718      22718      22718      22718      70.927
  2. Parapenaeus politus              1         2890       2890        2890       2890       2890       2890      79.950
  3. Solenocera vioscai               1         1523       1523        1523       1523       1523       1523      84.705
  4. Aequipecten glyptus              1         1375       1375        1375       1375       1375       1375      88.998
  5. Brissopsis atlantica elongata    1         1159       1159        1159       1159       1159       1159      92.616
  6. Porcellana sigsbeiana            1         1000       1000        1000       1000       1000       1000      95.738
  7. Atrina seminuda                  1          205        205         205        205        205        205      96.378
  8. Portunus spinicarpus             1          203        203         203        203        203        203      97.012
  9. Scaphella dubia                  1          200        200         200        200        200        200      97.637
 10. Plesionika tenuipes              1          164        164         164        164        164        164      98.149
 11. Scaphella dubia kieneri          1          112        112         112        112        112        112      98.498
 12. Anthenoides piercei              1          101        101         101        101        101        101      98.814
 13. Pomcellana sigsbeiana            1           95         95          95         95         95         95      99.110
 14. Bunodactis texaensis             1           86         86          86         86         86         86      99.379
 15. ECHINOIDEA                       1           62         62          62         62         62         62      99.572
 16. Nuculana acuta                   1           41         41          41         41         41         41      99.700
 17. Myropsis quinquespinosa          1           35         35          35         35         35         35      99.810
 18. Ethusa microphthalma             1           33         33          33         33         33         33      99.913
 19. Acanthocarpus alexandri          1           28         28          28         28         28         28     100.000


TOTAL # OBSERVATIONS =         1
TOTAL # OCCURRENCES =         19
TOTAL COUNT =   32030
CUM% BASED ON TOTAL
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BENTHIC EPIFAUNA OCCURENCE BY CRUISE, TRANSECT, AND STATION

CRU=8780 TRAN=D STA=1

PARAMETERS

VARIABLE	#OCC	TOTAL	#/OCC	MEAN	MAX	MIN	MIN>0	CUM%
1. Luidia clathrata	1	6196	6196	6196	6196	6196	6196	31.711
2. Bursatella c.f. leachii pleii	1	5380	5380	5380	5380	5380	5380	59.246
3. Luidia alternata	1	3549	3549	3549	3549	3549	3549	77.409
4. Trachypenaeus constrictus	1	1881	1881	1881	1881	1881	1881	87.036
5. Sicyonia brevirostris	1	451	451	451	451	451	451	89.344
6. Astropecten cingulatus	1	230	230	230	230	230	230	90.522
7. Loligo pealei	1	201	201	201	201	201	201	91.550
8. Encope aberrans	1	199	199	199	199	199	199	92.569
9. Parthenope serrata	1	163	163	163	163	163	163	93.403
10. Astropecten marginatum	1	146	146	146	146	146	146	94.150
11. Solenocera sp.	1	138	138	138	138	138	138	94.856
12. Fasciolaria lillium tortugana	1	114	114	114	114	114	114	95.440
13. Ficus communis	1	105	105	105	105	105	105	95.977
14. Astropecten arthiculatus	1	97	97	97	97	97	97	96.474
15. Portunuj sayi	1	91	91	91	91	91	91	96.939
16. Loligo plei	1	81	81	81	81	81	81	97.354
17. Parthenope granulata	1	78	78	78	78	78	78	97.753
18. Argopecten gibbus	1	75	75	75	75	75	75	98.137
19. Crepidula convexa	1	69	69	69	69	69	69	98.490
20. Ophiolepsis elegans	1	57	57	57	57	57	57	98.782
21. Callinectes similis	1	40	40	40	40	40	40	98.987
22. Acanthosquilla biminiensis	1	32	32	32	32	32	32	99.150
23. Sycyonia sp	1	27	27	27	27	27	27	99.289
24. Pagurus longicarpus	1	20	20	20	20	20	20	99.391
25. Aequipecten glyptus	1	20	20	20	20	20	20	99.493
26. Hepatus epheliticus	1	16	16	16	16	16	16	99.575
27. Albunea gibbesii	1	16	16	16	16	16	16	99.657
28. Podochela sidneyi	1	13	13	13	13	13	13	99.724
29. Mesorhoea sexispinosa	1	12	12	12	12	12	12	99.785
30. Illacantha intermedia	1	11	11	11	11	11	11	99.841
31. Osachelia semilevus	1	8	8	8	8	8	8	99.882
32. Crepidula maculosa	1	8	8	8	8	8	8	99.923
33. Callodes trispoinosus	1	6	6	6	6	6	6	99.954
34. Hypoconchia arculata	1	5	5	5	5	5	5	99.980
35. Ebalia stimpsoni	1	4	4	4	4	4	4	100.000

TOTAL # OBSERVATIONS = 1
TOTAL # OCCURRENCES = 35
TOTAL COUNT = 19539
CUM% BASED ON TOTAL

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                              BENTHIC EPIFAUNA OCCURENCE BY CRUISE, TRANSECT, AND STATION

                                               CRU=87BO TRAN=D STA=2

                                                    PARAMETERS

                                  #OCC      TOTAL     #/OCC      MEAN       MAX       MIN     MIN>O      CUM%

VARIABLE
  1. Solenocera vioscai             1      1494.0    1494.0    1494.0    1494.0    1494.0    1494.0    15.928
  2. Loligo pealei                  1      1203.0    1203.0    1203.0    1203.0    1203.0    1203.0    28.754
  3. Portunus ventralis             1      1094.0    1094.0    1094.0    1094.0    1094.0    1094.0    40.418
  4. Clypeaster ravenelli           1       830.0     830.0     830.0     830.0     830.0     830.0    49.267
  5. Solenocera atlanticus          1       780.0     780.0     780.0     780.0     780.0     780.0    57.583
  6. Astroporpa annulata            1       693.0     693.0     693.0     693.0     693.0     693.0    64.971
  7. Luidia clathrata               1       650.0     650.0     650.0     650.0     650.0     650.0    71.901
  8. Parthenope agonus              1       599.0     599.0     599.0     599.0     599.0     599.0    78.288
  9. Clypeaster rosaceus            1       267.0     267.0     267.0     267.0     267.0     267.0    81.134
 10. Octopus joubini                1       167.0     167.0     167.0     167.0     167.0     167.0    82.915
 11. Luidia alternata               1       129.0     129.0     129.0     129.0     129.0     129.0    84.290
 12. Sylocardis affinis             1       113.0     113.0     113.0     113.0     113.0     113.0    85.495
 13. Callapa flammea                1       108.0     108.0     108.0     108.0     108.0     108.0    86.646
 14. Astropecten comptus            1       102.0     102.0     102.0     102.0     102.0     102.0    87.734
 15. Echinaster modestus            1        90.0      90.0      90.0      90.0      90.0      90.0    88.693
 16. Astropecten cingulatus         1        87.0      87.0      87.0      87.0      87.0      87.0    89.6[illegible]1
 17. Scyllarus chacei               1        86.0      86.0      86.0      86.0      86.0      86.0    90.538
 18. Stenorhynchus seticornis       1        85.0      85.0      85.0      85.0      85.0      85.0    91.444
 19. Murex cabritii                 1        75.0      75.0      75.0      75.0      75.0      75.0    92.244
 20. Diadema antillarum             1        65.5      65.5      65.5      65.5      65.5      65.5    92.942
 21. Squilla deceptrix              1        50.0      50.0      50.0      50.0      50.0      50.0    93.475
 22. Distorsio clathrata            1        49.0      49.0      49.0      49.0      49.0      49.0    93.998
 23. Dentalium laqueatum            1        43.0      43.0      43.0      43.0      43.0      43.0    94.456
 24. Portunus spinicarpus           1        41.0      41.0      41.0      41.0      41.0      41.0    94.893
 25. Myropsis quinquespinosa        1        41.0      41.0      41.0      41.0      41.0      41.0    95.330
 26. Euthyonacta solida             1        41.0      41.0      41.0      41.0      41.0      41.0    95.767
 27. Conus stimpsoni                1        40.0      40.0      40.0      40.0      40.0      40.0    96.194
 28. Anthenoides piercei            1        37.0      37.0      37.0      37.0      37.0      37.0    96.588
 29. Iliacantha subglobosa          1        33.0      33.0      33.0      33.0      33.0      33.0    96.940
 30. Pagurus bullisi                1        30.0      30.0      30.0      30.0      30.0      30.0    97.260
 31. Tonna galea                    1        28.0      28.0      28.0      28.0      28.0      28.0    97.559
 32. Hypoconchia spinosissima       1        27.0      27.0      27.0      27.0      27.0      27.0    97.846
 33. Pecten raveneli                1        25.0      25.0      25.0      25.0      25.0      25.0    98.113
 34. Anasimus latus                 1        21.0      21.0      21.0      21.0      21.0      21.0    98.337
 35. Podochela sidneyi              1        21.0      21.0      21.0      21.0      21.0      21.0    98.561
 36. Parthenope serrata             1        19.0      19.0      19.0      19.0      19.0      19.0    98.763
 37. Luidia barbadensis             1        19.0      19.0      19.0      19.0      19.0      19.0    98.966
 38. Parthenope granulata           1        18.0      18.0      18.0      18.0      18.0      18.0    99.158
 39. Distorsio sp.                  1        16.0      16.0      16.0      16.0      16.0      16.0    99.328
 40. Pagurus defensus               1        12.0      12.0      12.0      12.0      12.0      12.0    99.456
 41. Tosia parva                    1        11.0      11.0      11.0      11.0      11.0      11.0    99.574
 42. Porcellana sayana              1        11.0      11.0      11.0      11.0      11.0      11.0    99.691
 43. Palicus alternatus             1         9.0       9.0       9.0       9.0       9.0       9.0    99.787
 44. Gnathia sp.                    1         5.0       5.0       5.0       5.0       5.0       5.0    99.840
 45. Manucomplanus corallinus       1         5.0       5.0       5.0       5.0       5.0       5.0    99.893
 46. Dromidia antellensis           1         5.0       5.0       5.0       5.0       5.0       5.0    99.947
 47. Parthenope fraterculus         1         5.0       5.0       5.0       5.0       5.0       5.0   100.000


TOTAL # OBSERVATIONS =        1
TOTAL # OCCURRENCES =       47
TOTAL COUNT =  9379.5
CUM% BASED ON TOTAL
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BENTHIC EPIFAUNA OCCURENCE BY CRUISE, TRANSECT, AND STATION

CRU=8780 TRAN=D STA=3

PARAMETERS

VARIABLE	#OCC	TOTAL	#/OCC	MEAN	MAX	MIN	MIN>0	CUM%
1. Solenocera atlanticus	1	1009.0	1009.0	1009.0	1009.0	1009.0	1009.0	17.498
2. Stenorhynchus seticornis	1	768.0	768.0	768.0	768.0	768.0	768.0	30.816
3. Leptogorgia setacea	1	710.0	710.0	710.0	710.0	710.0	710.0	43.128
4. Solenocera vioscai	1	609.0	609.0	609.0	609.0	609.0	609.0	53.689
5. Aglaophenia rigida	1	580.0	580.0	580.0	580.0	580.0	580.0	63.748
6. Astrochema nutingii	1	384.0	384.0	384.0	384.0	384.0	384.0	70.407
7. Stenocyanops spinimana	1	245.0	245.0	245.0	245.0	245.0	245.0	74.655
8. Astrophytum muricatum	1	159.0	159.0	159.0	159.0	159.0	159.0	77.413
9. Chondrilla nucula	1	133.0	133.0	133.0	133.0	133.0	133.0	79.719
10. Anasimus latus	1	129.0	129.0	129.0	129.0	129.0	129.0	81.956
11. Pagurus bonairensis	1	119.0	119.0	119.0	119.0	119.0	119.0	84.020
12. Holothura lentiginosa enodis	1	100.0	100.0	100.0	100.0	100.0	100.0	85.754
13. Paracyathus pulchellus	1	97.0	97.0	97.0	97.0	97.0	97.0	87.436
14. Clypeaster sp	1	88.0	88.0	88.0	88.0	88.0	88.0	88.962
15. Sylocardis affinis	1	69.0	69.0	69.0	69.0	69.0	69.0	90.159
16. Nibilia antilocapra	1	68.0	68.0	68.0	68.0	68.0	68.0	91.338
17. Scyllarus depressus	1	61.0	61.0	61.0	61.0	61.0	61.0	92.396
18. Myropsis quinquespinosa	1	53.0	53.0	53.0	53.0	53.0	53.0	93.315
19. Crepidula fornicata	1	49.0	49.0	49.0	49.0	49.0	49.0	94.165
20. Tonna galea	1	47.0	47.0	47.0	47.0	47.0	47.0	94.980
21. Squilla deceptrix	1	41.0	41.0	41.0	41.0	41.0	41.0	95.691
22. Echinaster modestus	1	39.0	39.0	39.0	39.0	39.0	39.0	96.367
23. Iliacantha liodactylus	1	35.0	35.0	35.0	35.0	35.0	35.0	96.974
24. Hymeniacinon heliophila	1	28.0	28.0	28.0	28.0	28.0	28.0	97.459
25. Pachygrapsus transversus ?????	1	28.0	28.0	28.0	28.0	28.0	28.0	97.945
26. Portunus spinicarpus	1	26.0	26.0	26.0	26.0	26.0	26.0	98.396
27. Loligo sp.	1	25.0	25.0	25.0	25.0	25.0	25.0	98.829
28. Aequipecten muscosus	1	25.0	25.0	25.0	25.0	25.0	25.0	99.263
29. Eriphia gonagra	1	12.0	12.0	12.0	12.0	12.0	12.0	99.471
30. Psolus tuberculosis	1	10.0	10.0	10.0	10.0	10.0	10.0	99.644
31. Porcellana sigsbeiana	1	9.0	9.0	9.0	9.0	9.0	9.0	99.801
32. Amphiolus squamatus	1	9.0	9.0	9.0	9.0	9.0	9.0	99.957
33. Hemipholis elongata	1	2.5	2.5	2.5	2.5	2.5	2.5	100.000

TOTAL # OBSERVATIONS = 1
TOTAL # OCCURRENCES = 33
TOTAL COUNT = 5766.5
CUM% BASED ON TOTAL

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                         BENTHIC EPIFAUNA OCCURENCE BY CRUISE, TRANSECT, AND STATION

                                         CRU=8780 TRAN=D STA=4

                                              PARAMETERS

                                       #OCC     TOTAL     #/OCC      MEAN      MAX       MIN     MIN>O      CUM%

VARIABLE
  1. Brissopsis atlantica elongata       1       8051      8051      8051      8051      8051      8051     66.488
  2. Parapenaeus politus                 1        992       992       992       992       992       992     74.680
  3. Brissopsis c.f. antlantica          1        864       864       864       864       864       864     81.815
  4. Aequipecten glyptus                 1        314       314       314       314       314       314     84.408
  5. Squilla edentata edentata           1        287       287       287       287       287       287     86.778
  6. Solenocera vioscai                  1        263       263       263       263       263       263     88.950
  7. Stenocyanops spinimana              1        255       255       255       255       255       255     91.056
  8. Acanthocarpus alexandri             1        173       173       173       173       173       173     92.485
  9. Brissopsis c.f. elongata            1        155       155       155       155       155       155     93.765
 10. Pyromaia cuspidata                  1        124       124       124       124       124       124     94.789
 11. Ophiozona impressa                  1        115       115       115       115       115       115     95.739
 12. Conus floridanus floridensis        1         96        96        96        96        96        96     96.532
 13. Solenocera necopina                 1         61        61        61        61        61        61     97.035
 14. Polystira tellea                    1         57        57        57        57        57        57     97.506
 15. Porcellana sigsbeiana               1         56        56        56        56        56        56     97.968
 16. Phalium granulatum                  1         40        40        40        40        40        40     98.299
 17. Munida longipes                     1         40        40        40        40        40        40     98.629
 18. Xenophora sp                        1         35        35        35        35        35        35     98.918
 19. Ethusa sp                           1         33        33        33        33        33        32     99.191
 20. Haminoea elegans                    1         20        20        20        20        20        20     99.356
 21. Nanoplax xanthiformis               1         17        17        17        17        17        17     99.496
 22. Tetraxanthus rathbunae              1         17        17        17        17        17        17     99.637
 23. Pagurus longicarpus                 1         14        14        14        14        14        14     99.752
 24. Astropecten arthiculatus            1         12        12        12        12        12        12     99.851
 25. Pagurus bullisi                     1          9         9         9         9         9         9     99.926
 26. Speocarcinus spinimana              1          9         9         9         9         9         9    100.000


TOTAL # OBSERVATIONS =        1
TOTAL # OCCURRENCES =        26
TOTAL COUNT =   12109
CUM% BASED ON TOTAL
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                    BENTHIC EPIFAUNA OCCURENCE BY CRUISE, TRANSECT, AND STATION

                                  CRU=8780 TRAN=M STA=1

                                       PARAMETERS

                                #OCC     TOTAL     #/OCC      MEAN       MAX       MIN     MIN>0     CUM%

VARIABLE
  1. Loligo plei                  1    12453.0   12453.0   12453.0   12453.0   12453.0   12453.0    67.447
  2. Callinectes similis          1     1588.0    1588.0    1588.0    1588.0    1588.0    1588.0    76.047
  3. Portunus gibbesii            1     1500.0    1500.0    1500.0    1500.0    1500.0    1500.0    84.171
  4. Trachypenaeus constrictus    1      685.0     685.0     685.0     685.0     685.0     685.0    87.881
  5. Solenocera atlanticus        1      335.0     335.0     335.0     335.0     335.0     335.0    89.696
  6. Loligo pealei                1      333.0     333.0     333.0     333.0     333.0     333.0    91.499
  7. Sicyonia brevirostris        1      324.0     324.0     324.0     324.0     324.0     324.0    93.254
  8. Squilla empusa               1      179.0     179.0     179.0     179.0     179.0     179.0    94.224
  9. Penaeus setiferus            1      168.0     168.0     168.0     168.0     168.0     168.0    95.134
 10. Astropecten duplicatus       1      154.5     154.5     154.5     154.5     154.5     154.5    95.970
 11. Libinia emarginata           1      118.0     118.0     118.0     118.0     118.0     118.0    96.610
 12. Sicyonia dorsalis            1      117.0     117.0     117.0     117.0     117.0     117.0    97.243
 13. Hepatus epheliticus          1      113.0     113.0     113.0     113.0     113.0     113.0    97.855
 14. Luidia alternata             1       80.0      80.0      80.0      80.0      80.0      80.0    98.289
 15. Astropecten cingulatus       1       79.0      79.0      79.0      79.0      79.0      79.0    98.716
 16. Mesopenaeus tropicalis       1       69.0      69.0      69.0      69.0      69.0      69.0    99.090
 17. Callinectes sapidus          1       55.0      55.0      55.0      55.0      55.0      55.0    99.388
 18. Astropecten arthiculatus     1       35.0      35.0      35.0      35.0      35.0      35.0    99.578
 19. Parthenope serrata           1       34.0      34.0      34.0      34.0      34.0      34.0    99.762
 20. Portunus spinimanus          1       34.0      34.0      34.0      34.0      34.0      34.0    99.946
 21. Anomia simplex               1       10.0      10.0      10.0      10.0      10.0      10.0   100.000


TOTAL # OBSERVATIONS =        1
TOTAL # OCCURRENCES =        21
TOTAL COUNT = 18463.5
CUM% BASED ON TOTAL
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                                   BENTHIC EPIFAUNA OCCURENCE BY CRUISE, TRANSECT, AND STATION

                                                   CRU=8780 TRAN=M STA=2

                                                        PARAMETERS

                                  #OCC     TOTAL     #/OCC      MEAN       MAX       MIN     MIN>0      CUM%
VARIABLE
  1. Portunus spinicarpus            1      6453      6453      6453      6453      6453      6453    44.045
  2. Sicyonia brevirostris           1      2345      2345      2345      2345      2345      2345    60.051
  3. Callapa sulcata                 1      1123      1123      1123      1123      1123      1123    67.716
  4. Luidia clathrata                1      1052      1052      1052      1052      1052      1052    74.896
  5. Loligo plei                     1       646       646       646       646       646       646    79.305
  6. O. actinana tribe thenana       1       427       427       427       427       427       427    82.220
  7. Squilla chydaea                 1       294       294       294       294       294       294    84.226
  8. Loligo sp.                      1       254       254       254       254       254       254    85.960
  9. Scyllarides nodifer             1       251       251       251       251       251       251    87.673
 10. Tethaster grandis               1       181       181       181       181       181       181    88.909
 11. Parthenope granulata            1       176       176       176       176       176       176    90.110
 12. Clypeaster ravenelli            1       170       170       170       170       170       170    91.270
 13. Ophiolepsis elegans             1       160       160       160       160       160       160    92.362
 14. Petrochirus diogenes            1       140       140       140       140       140       140    93.318
 15. Clyreaster prostratus           1       109       109       109       109       109       109    94.062
 16. Echinaster modestus             1        93        93        93        93        93        93    94.697
 17. Astroporpa annulata             1        79        79        79        79        79        79    95.236
 18. Processa guyanae                1        75        75        75        75        75        75    95.748
 19. Verrillaster spinulosus         1        73        73        73        73        73        73    96.246
 20. Distorsio clathrata             1        64        64        64        64        64        64    96.683
 21. Encope michelini                1        61        61        61        61        61        61    97.099
 22. Scyllarus depressus             1        58        58        58        58        58        58    97.495
 23. Euthyonacta solida              1        57        57        57        57        57        57    97.884
 24. Luidia c.f. clathrata           1        48        48        48        48        48        48    98.212
 25. Anachis lafresnayi              1        39        39        39        39        39        39    98.478
 26. Stenocyanops spinimana          1        32        32        32        32        32        32    98.696
 27. Octopus joubini                 1        32        32        32        32        32        32    98.915
 28  Thyonata gemmata                1        31        31        31        31        31        31    99.126
 29. Aequipecten glyptus             1        30        30        30        30        30        30    99.331
 30. Solenocera atlanticus           1        25        25        25        25        25        25    99.502
 31. Anasimus latus                  1        19        19        19        19        19        19    99.631
 32. Argopecten gibbus               1        16        16        16        16        16        16    99.741
 33. Crepidula convexa               1         9         9         9         9         9         9    99.802
 34. Symalpheus townsendi            1         9         9         9         9         9         9    99.863
 35. Galathea rostrata               1         7         7         7         7         7         7    99.911
 36. Argopecten nucleus              1         7         7         7         7         7         7    99.959
 37. Munida pusilla                  1         6         6         6         6         6         6   100.000


TOTAL # OBSERVATIONS =          1
TOTAL # OCCURRENCES =      37
TOTAL COUNT =    14651
CUM% BASED ON TOTAL
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                                BENTHIC EPIFAUNA OCCURENCE BY CRUISE, TRANSECT, AND STATION

                                                CRU=87BO TRAN=M STA=3

                                                     PARAMETERS

                                         #OCC     TOTAL     #/OCC      MEAN       MAX       MIN     MIN>0      CUM%

VARIABLE
  1. Parapenaeus politus                   1      6703      6703      6703      6703      6703      6703    31.154
  2. Portunus spinicarpus                  1      5194      5194      5194      5194      5194      5194    55.294
  3. Polystira tellea                      1      3779      3779      3779      3779      3779      3779    72.857
  4. Squilla chydaea                       1      1482      1482      1482      1482      1482      1482    79.745
  5. Astropecten cingulatus                1      1019      1019      1019      1019      1019      1019    84.481
  6. Scaphella dubia                       1       628       628       628       628       628       628    87.400
  7. Loligo pealei                         1       523       523       523       523       523       523    89.831
  8. Halieutichthys aculeatus              1       345       345       345       345       345       345    91.434
  9. Bunodactis texaensis                  1       307       307       307       307       307       307    92.861
 10. Stenocyanops spinimana                1       225       225       225       225       225       225    93.907
 11. Callapa sulcata                       1       215       215       215       215       215       215    94.906
 12. Nibilia antilocapra                   1       191       191       191       191       191       191    95.794
 13. Penaeus aztecus                       1       143       143       143       143       143       143    96.458
 14. Squilla edentata                      1       122       122       122       122       122       122    97.025
 15. Fasciolaria lillium bullisi           1       106       106       106       106       106       106    97.518
 16. Porcellana sigsbeiana                 1       100       100       100       100       100       100    97.983
 17. Sicyonia burkenroadi                  1        84        84        84        84        84        84    98.373
 18. Astropecten arthiculatus              1        70        70        70        70        70        70    98.699
 19. Tethaster grandis                     1        54        54        54        54        54        54    98.950
 20. Aequipecten glyptus                   1        50        50        50        50        50        50    99.182
 21. Acanthocarpus alexandri               1        31        31        31        31        31        31    99.326
 22. Dentalium sp.                         1        30        30        30        30        30        30    99.466
 23. Glyptoplax smith ii                   1        27        27        27        27        27        27    99.591
 24. Pseudochama radians                   1        24        24        24        24        24        24    99.703
 25. Anasimus latus                        1        22        22        22        22        22        22    99.805
 26. Astroporpa annulata                   1        14        14        14        14        14        14    99.870
 27. Homola barbata                        1        12        12        12        12        12        12    99.926
 28. Munida irrasa                         1        12        12        12        12        12        12    99.981
 29. Porcellana sayana                     1         4         4         4         4         4         4   100.000


TOTAL # OBSERVATIONS =         1
TOTAL # OCCURRENCES =        29
TOTAL COUNT =    21516
CUM% BASED ON TOTAL
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BENTHIC EPIFAUNA OCCURENCE BY CRUISE, TRANSECT, AND STATION

CRU=8780 TRAN=M STA=4

PARAMETERS

VARIABLE	#OCC	TOTAL	#/OCC	MEAN	MAX	MIN	MIN>0	CUM%
1. Aequipecten glyptus	1	1826	1826	1826	1826	1826	1826	40.750
2. Squilla chydaea	1	470	470	470	470	470	470	51.239
3. Stenocyanops spinimana	1	467	467	467	467	467	467	61.660
4. Porcellana sigsbeiana	1	373	373	373	373	373	373	69.984
5. Anthenoides piercei	1	289	289	289	289	289	289	76.434
6. Squilla edentata	1	137	137	137	137	137	137	79.491
7. Tethaster grandis	1	130	130	130	130	130	130	82.392
8. Scaphella dubia	1	118	118	118	118	118	118	85.026
9. Carditamera floridana	1	98	98	98	98	98	98	87.213
10. Nassarius albus	1	95	95	95	95	95	95	89.333
11. Prunum apicina	1	88	88	88	88	88	88	91.297
12. Callapa sulcata	1	85	85	85	85	85	85	93.193
13. Solenocera necopina	1	84	84	84	84	84	84	95.068
14. Squilla grenadensis	1	75	75	75	75	75	75	96.742
15. Conus mazei	1	44	44	44	44	44	44	97.724
16. Anadara baughmani	1	33	33	33	33	33	33	98.460
17. Crassispira ostrearum	1	19	19	19	19	19	19	98.884
18. Dromia erythropus	1	19	19	19	19	19	19	99.308
19. Myropsis quinquespinosa	1	19	19	19	19	19	19	99.732
20. Astropecten cingulatus	1	12	12	12	12	12	12	100.000

TOTAL # OBSERVATIONS = 1
TOTAL # OCCURRENCES = 20
TOTAL COUNT = 4481
CUM% BASED ON TOTAL

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                              BENTHIC EPIFAUNA OCCURENCE BY CRUISE, TRANSECT, AND STATION

                                             CRU=8881 TRAN=C STA=1

                                             PARAMETERS

                                  #OCC     TOTAL     #/OCC      MEAN       MAX       MIN     MIN>0      CUM%

VARIABLE
  1. Trachypenaeus constrictus       1     11683     11683     11683     11683     11683     11683    47.394
  2. Sicyonia dorsalis               1      2488      2488      2488      2488      2488      2488    57.487
  3. Cantharius cancellarius         1      1804      1804      1804      1804      1804      1804    64.805
  4. Callinectes similis             1      1599      1599      1599      1599      1599      1599    71.291
  5. Astropecten duplicatus          1      1569      1569      1569      1569      1569      1569    77.656
  6. Squilla empusa                  1      1224      1224      1224      1224      1224      1224    82.621
  7. Portunus gibbesii               1       940       940       940       940       940       940    86.435
  8. Penaeus aztecus                 1       834       834       834       834       834       834    89.818
  9. Luidia clathrata                1       521       521       521       521       521       521    91.931
 10. Hepatus epheliticus             1       402       402       402       402       402       402    93.562
 11. Portunus sayi                   1       341       341       341       341       341       341    94.945
 12. Libinia emarginata              1       284       284       284       284       284       284    96.098
 13. Distorsio clathrata             1       269       269       269       269       269       269    97.189
 14. Loligo pealei                   1       226       226       226       226       226       226    98.106
 15. Loligo plei                     1       150       150       150       150       150       150    98.714
 16. Bunodactis texaensis            1       148       148       148       148       148       148    99.314
 17. Crepidula plana                 1        52        52        52        52        52        52    99.525
 18. Pagurus bonairensis             1        32        32        32        32        32        32    99.655
 19. Portunus spinimanus             1        27        27        27        27        27        27    99.765
 20. Pagurus bullisi                 1        23        23        23        23        23        23    99.858
 21. Pagurus longicarpus             1        22        22        22        22        22        22    99.947
 22. Architectonica nobilis          1        13        13        13        13        13        13   100.000


TOTAL # OBSERVATIONS =        1
TOTAL # OCCURRENCES =       22
TOTAL COUNT =   24651
CUM% BASED ON TOTAL
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                         BENTHIC EPIFAUNA OCCURENCE BY CRUISE, TRANSECT, AND STATION

                                        CRU=88B1 TRAN=C STA=2

                                             PARAMETERS

                                       #OCC     TOTAL     #/OCC      MEAN       MAX       MIN     MIN>O      CUM%

VARIABLE
  1. Squilla edentata edentata           1      3744      3744      3744      3744      3744      3744     30.291
  2. Trachypenaeus constrictus           1      2637      2637      2637      2637      2637      2637     51.626
  3. Solenocera vioscai                  1      1556      1556      1556      1556      1556      1556     64.215
  4. Callinectes similis                 1      1203      1203      1203      1203      1203      1203     73.948
  5. Squilla empusa                      1       791       791       791       791       791       791     80.348
  6. Penaeus aztecus                     1       561       561       561       561       561       561     84.887
  7. Parapenaeus politus                 1       395       395       395       395       395       395     88.083
  8. Astropecten duplicatus              1       283       283       283       283       283       283     90.372
  9. Loligo pealei                       1       255       255       255       255       255       255     92.435
 10. Portunus spinicarpus                1       199       199       199       199       199       199     94.045
 11. Stenorhynchus seticornis            1       118       118       118       118       118       118     95.000
 12. Hepatus ephelitícus                 1       112       112       112       112       112       112     95.906
 13. Libinia emarginata                  1        92        92        92        92        92        92     96.650
 14. Porcellana sigsbeiana               1        67        67        67        67        67        67     97.193
 15. Leiolamburs nitidus                 1        64        64        64        64        64        64     97.710
 16. Munida forceps                      1        57        57        57        57        57        57     98.172
 17. Sicyonia burkenroadi                1        51        51        51        51        51        51     98.584
 18  Porcellana sayana                   1        43        43        43        43        43        43     98.932
 19. Stenopus hispidus                   1        35        35        35        35        35        35     99.215
 20. Distorsio clathrata                 1        35        35        35        35        35        35     99.498
 21. Portunus spinimanus                 1        30        30        30        30        30        30     99.741
 22. Podochela riisei                    1        18        18        18        18        18        18     99.887
 23. Raninoides louisianensis            1        14        14        14        14        14        14    100.000


TOTAL # OBSERVATIONS =         1
TOTAL # OCCURRENCES =         23
TOTAL COUNT =    12360
CUM% BASED ON TOTAL
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BENTHIC EPIFAUNA OCCURENCE BY CRUISE, TRANSECT, AND STATION

CRU=8881 TRAN=C STA=3

PARAMETERS

VARIABLE	#OCC	TOTAL	#/OCC	MEAN	MAX	MIN	MIN>0	CUM%
1. Parapenaeus politus	1	53621	53621	53621	53621	53621	53621	62.324
2. Brissopsis alta	1	15163	15163	15163	15163	15163	15163	79.948
3. Plesionika tenuipes	1	8384	8384	8384	8384	8384	8384	89.693
4. Brissopsis atlantica elongata	1	3027	3027	3027	3027	3027	3027	93.211
5. Sicyonia burkenroadi	1	1665	1665	1665	1665	1665	1665	95.146
6. Squilla chydaea	1	1408	1408	1408	1408	1408	1408	96.783
7. Solenocera vioscai	1	1395	1395	1395	1395	1395	1395	98.404
8. Loligo pealei	1	612	612	612	612	612	612	99.115
9. Portunus spinicarpus	1	314	314	314	314	314	314	99.480
10. Rossia tenera	1	225	225	225	225	225	225	99.742
11. Petrochirus diogenes	1	95	95	95	95	95	95	99.852
12. Scyllarus depressus	1	84	84	84	84	84	84	99.950
13. Stenopus scutellatus	1	30	30	30	30	30	30	99.985
14. Porcellana sayana	1	13	13	13	13	13	13	100.000

TOTAL # OBSERVATIONS = 1
TOTAL # OCCURRENCES = 14
TOTAL COUNT = 86036
CUM% BASED ON TOTAL

BENTHIC EPIFAUNA OCCURENCE BY CRUISE, TRANSECT, AND STATION

CRU=8881 TRAN=C STA=4

PARAMETERS

VARIABLE	#OCC	TOTAL	#/OCC	MEAN	MAX	MIN	MIN>0	CUM%
1. Brissopsis alta	1	14647	14647	14647	14647	14647	14647	78.038
2. Aequipecten glyptus	1	1192	1192	1192	1192	1192	1192	84.389
3. Brissopsis atlantica elongata	1	1159	1159	1159	1159	1159	1159	90.564
4. Porcellana sigsbeiana	1	1134	1134	1134	1134	1134	1134	96.606
5. Atrina seminuda	1	205	205	205	205	205	205	97.698
6. Scaphella dubia	1	200	200	200	200	200	200	98.764
7. Anthenoides piercei	1	101	101	101	101	101	101	99.302
8. ECHINOIDEA	1	62	62	62	62	62	62	99.632
9. Nuculana acuta	1	41	41	41	41	41	41	99.851
10. Acanthocarpus alexandri	1	28	28	28	28	28	28	100.000

TOTAL # OBSERVATIONS = 1
TOTAL # OCCURRENCES = 10
TOTAL COUNT = 18769
CUM% BASED ON TOTAL

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                                         BENTHIC EPIFAUNA OCCURENCE BY CRUISE, TRANSECT, AND STATION

                                                        CRU=8881 TRAN=D STA=1

                                                              PARAMETERS

                                              #OCC      TOTAL      #/OCC       MEAN        MAX        MIN      MIN>0       CUM%

VARIABLE
   1. Bursatella c.f. leachii pleii            1        5380       5380       5380       5380       5380       5380      36.261
   2. Luidia clathrata                         1        4565       4565       4565       4565       4565       4565      67.028
   3. Luidia alternata                         1        3549       3549       3549       3549       3549       3549      90.948
   4. Astropecten cingulatus                   1         230        230        230        230        230        230      92.498
   5. Loligo pealei                            1         201        201        201        201        201        201      93.853
   6. Encope aberrans                          1         199        199        199        199        199        199      95.194
   7. Parthenope serrata                       1         163        163        163        163        163        163      96.293
   8. Astropecten marginatum                   1         146        146        146        146        146        146      97.277
   9. Ficus communis                           1         105        105        105        105        105        105      97.985
  10. Portunus sayi                            1          91         91         91         91         91         91      98.598
  11. Ophiolepsis elegans                      1          57         57         57         57         57         57      98.982
  12. Crepidula convexa                        1          52         52         52         52         52         52      99.333
  13. Callinectes similis                      1          40         40         40         40         40         40      99.602
  14. Argopecten gibbus                        1          39         39         39         39         39         39      99.865
  15. Aequipecten glyptus                      1          20         20         20         20         20         20     100.000


TOTAL # OBSERVATIONS =        1
TOTAL # OCCURRENCES =       15
TOTAL COUNT =    14837
CUM% BASED ON TOTAL
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BENTHIC EPIFAUNA OCCURENCE BY CRUISE, TRANSECT, AND STATION

CRU=88B1 TRAN=D STA=2

PARAMETERS

VARIABLE	#OCC	TOTAL	#/OCC	MEAN	MAX	MIN	MIN>0	CUM%
1. Solenocera vioscai	1	1494	1494	1494	1494	1494	1494	24.147
2. Portunus ventralis	1	1094	1094	1094	1094	1094	1094	41.830
3. Clypeaster ravenelli	1	830	830	830	830	830	830	55.245
4. Solenocera atlanticus	1	780	780	780	780	780	780	67.852
5. Parthenope agonus	1	535	535	535	535	535	535	76.499
6. Clypeaster rosaceus	1	267	267	267	267	267	267	80.815
7. Luidia alternata	1	129	129	129	129	129	129	82.900
8. Octopus joubini	1	126	126	126	126	126	126	84.936
9. Sylocardis affinis	1	108	108	108	108	108	108	86.682
10. Callapa flammea	1	108	108	108	108	108	108	88.427
11. Astropecten comptus	1	102	102	102	102	102	102	90.076
12. Astropecten cingulatus	1	87	87	87	87	87	87	91.482
13. Scyllarus chacei	1	86	86	86	86	86	86	92.872
14. Echinaster modestus	1	66	66	66	66	66	66	93.939
15. Squilla deceptrix	1	50	50	50	50	50	50	94.747
16. Distorsio clathrata	1	49	49	49	49	49	49	95.539
17. Myropsis quinquespinosa	1	41	41	41	41	41	41	96.202
18. Conus stimpsoni	1	40	40	40	40	40	40	96.848
19. Anthenoides piercei	1	37	37	37	37	37	37	97.446
20. Iliacantha subglobosa	1	33	33	33	33	33	33	97.980
21. Tonna galea	1	28	28	28	28	28	28	98.432
22. Anasimus latus	1	21	21	21	21	21	21	98.772
23. Podochela sidneyi	1	21	21	21	21	21	21	99.111
24. Parthenope serrata	1	19	19	19	19	19	19	99.418
25. Luidia barbadensis	1	19	19	19	19	19	19	99.725
26. Tosia parva	1	11	11	11	11	11	11	99.903
27. Porcellana sayana	1	6	6	6	6	6	6	100.000

TOTAL # OBSERVATIONS = 1
TOTAL # OCCURRENCES = 27
TOTAL COUNT = 6187
CUM% BASED ON TOTAL

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                        BENTHIC EPIFAUNA OCCURENCE BY CRUISE, TRANSECT, AND STATION

                                         CRU=8881 TRAN=D STA=3

                                              PARAMETERS

                                         #OCC      TOTAL      #/OCC       MEAN        MAX        MIN      MIN>0       CUM%

VARIABLE
  1. Solenocera atlanticus                  1       1009       1009       1009       1009       1009       1009     29.053
  2. Stenorhynchus seticornis               1        682        682        682        682        682        682     48.690
  3. Solenocera vioscai                     1        609        609        609        609        609        609     66.225
  4. Astrochema nutingii                    1        201        201        201        201        201        201     72.013
  5. Astrophytum muricatum                  1        159        159        159        159        159        159     76.591
  6. Anasimus latus                         1        129        129        129        129        129        129     80.305
  7. Pagurus bonairensis                    1        107        107        107        107        107        107     83.386
  8. Clypeaster sp                          1         88         88         88         88         88         88     85.920
  9. Nibilia antilocapra                    1         68         68         68         68         68         68     87.878
 10. Scyllarus depressus                    1         61         61         61         61         61         61     89.634
 11. Sylocardis affinis                     1         60         60         60         60         60         60     91.362
 12. Myropsis quinquespinosa                1         53         53         53         53         53         53     92.888
 13. Crepidula fornicata                    1         49         49         49         49         49         49     94.299
 14. Tonna galea                            1         47         47         47         47         47         47     95.652
 15. Squilla deceptrix                      1         41         41         41         41         41         41     96.833
 16. Illiacantha lirodactylus               1         35         35         35         35         35         35     97.840
 17. Pachygrapsus transversus ?????         1         28         28         28         28         28         28     98.647
 18. Portunus spinicarpus                   1         26         26         26         26         26         26     99.395
 19. Eriphia gonagra                        1         12         12         12         12         12         12     99.741
 20. Porcellana sigsbeiana                  1          9          9          9          9          9          9    100.000


TOTAL # OBSERVATIONS =         1
TOTAL # OCCURRENCES =        20
TOTAL COUNT =     3473
CUM% BASED ON TOTAL
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                    BENTHIC EPIFAUNA OCCURENCE BY CRUISE, TRANSECT, AND STATION

                                    CRU=88B1 TRAN=M STA=1

                                         PARAMETERS

                                #OCC    TOTAL    #/OCC     MEAN      MAX      MIN    MIN>0      CUM%

VARIABLE
  1. Loligo plei                   1    12453    12453    12453    12453    12453    12453    73.582
  2. Callinectes similis           1     1588     1588     1588     1588     1588     1588    82.965
  3. Portunus gibbesii             1     1500     1500     1500     1500     1500     1500    91.828
  4. Sicyonia brevirostris         1      324      324      324      324      324      324    93.743
  5. Squilla empusa                1      179      179      179      179      179      179    94.800
  6. Astropecten duplicatus        1      136      136      136      136      136      136    95.604
  7. Libinia emarginata            1      118      118      118      118      118      118    96.301
  8. Sicyonia dorsalis             1      117      117      117      117      117      117    96.992
  9. Hepatus epheliticus           1      113      113      113      113      113      113    97.660
 10. Luidia alternata              1       80       80       80       80       80       80    98.133
 11. Astropecten cingulatus        1       79       79       79       79       79       79    98.600
 12. Mesopenaeus tropicalis        1       69       69       69       69       69       69    99.007
 13. Callinectes sapidus           1       55       55       55       55       55       55    99.332
 14. Astropecten arthiculatus      1       35       35       35       35       35       35    99.539
 15. Parthenope serrata            1       34       34       34       34       34       34    99.740
 16. Portunus spinimanus           1       34       34       34       34       34       34    99.941
 17. Anomia simplex                1       10       10       10       10       10       10   100.000


TOTAL # OBSERVATIONS =         1
TOTAL # OCCURRENCES =        17
TOTAL COUNT =    16924
CUM% BASED ON TOTAL
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                         BENTHIC EPIFAUNA OCCURENCE BY CRUISE, TRANSECT, AND STATION

                                          CRU=88B1 TRAN=M STA=2

                                               PARAMETERS

                                  #OCC    TOTAL    #/OCC     MEAN      MAX      MIN    MIN>0      CUM%
VARIABLE
  1. Portunus spinicarpus            1     5394     5394     5394     5394     5394     5394    48.996
  2. Sicyonia brevirostris           1     2042     2042     2042     2042     2042     2042    67.545
  3. Luidia clathrata                1      932      932      932      932      932      932    76.011
  4. Callspa sulcata                 1      758      758      758      758      758      758    82.896
  5. Loligo plei                     1      646      646      646      646      646      646    88.764
  6. Squilla chydaea                 1      294      294      294      294      294      294    91.434
  7. Loligo sp.                      1      254      254      254      254      254      254    93.741
  8. Scyllarides nodifer             1      251      251      251      251      251      251    96.021
  9. Tethaster grandis               1      127      127      127      127      127      127    97.175
 10. Clypeaster ravenelli            1       75       75       75       75       75       75    97.856
 11. Scyllarus depressus             1       58       58       58       58       58       58    98.383
 12. Distorsio clathrata             1       41       41       41       41       41       41    98.756
 13. Anachis lafresnayi              1       39       39       39       39       39       39    99.110
 14. Parthenope granulata            1       34       34       34       34       34       34    99.419
 15. Aequipecten glyptus             1       30       30       30       30       30       30    99.691
 16. Argopecten gibbus               1       16       16       16       16       16       16    99.836
 17. Crepidula convexa               1        9        9        9        9        9        9    99.918
 18. Astroporpa annulata             1        9        9        9        9        9        9   100.000


TOTAL # OBSERVATIONS =        1
TOTAL # OCCURRENCES =        18
TOTAL COUNT =    11009
CUM% BASED ON TOTAL
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                         BENTHIC EPIFAUNA OCCURENCE BY CRUISE, TRANSECT, AND STATION

                                          CRU=8881 TRAN=M STA=3

                                               PARAMETERS

                                    #OCC      TOTAL      #/OCC       MEAN        MAX        MIN      MIN>0       CUM%

VARIABLE
  1. Polystira tellea                  1       3779       3779       3779       3779       3779       3779     46.085
  2. Portunus spinicarpus              1       1474       1474       1474       1474       1474       1474     64.061
  3. Astropecten cingulatus            1       1019       1019       1019       1019       1019       1019     76.488
  4. Squilla chydaea                   1        918        918        918        918        918        918     87.683
  5. Scaphella dubia                   1        258        258        258        258        258        258     90.829
  6. Nibilia antilocapra               1        191        191        191        191        191        191     93.159
  7. Callapa sulcata                   1        135        135        135        135        135        135     94.805
  8. Squilla edentata                  1        122        122        122        122        122        122     96.293
  9. Fasciolaria lillium bullisi       1        106        106        106        106        106        106     97.585
 10. Porcellana sigsbeiana             1        100        100        100        100        100        100     98.805
 11. Tethaster grandis                 1         54         54         54         54         54         54     99.463
 12. Dentalium sp.                     1         30         30         30         30         30         30     99.829
 13. Astroporpa annulata               1         14         14         14         14         14         14    100.000

TOTAL # OBSERVATIONS =        1
TOTAL # OCCURRENCES =        13
TOTAL COUNT =    8200
CUM% BASED ON TOTAL
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BENTHIC EPIFAUNA OCCURENCE BY CRUISE, TRANSECT, AND STATION

CRU=8881 TRAN=M STA=4

PARAMETERS

VARIABLE	#OCC	TOTAL	#/OCC	MEAN	MAX	MIN	MIN>0	CUM%
1. Aequipecten glyptus	1	1826	1826	1826	1826	1826	1826	40.750
2. Squilla chydaea	1	470	470	470	470	470	470	51.239
3. Stenocyanops spinimana	1	467	467	467	467	467	467	61.660
4. Porcellana sigsbeiana	1	373	373	373	373	373	373	69.984
5. Anthenoides piercei	1	289	289	289	289	289	289	76.434
6. Squilla edentata	1	137	137	137	137	137	137	79.491
7. Tethaster grandis	1	130	130	130	130	130	130	82.392
8. Scaphella dubia	1	118	118	118	118	118	118	85.026
9. Carditamera floridana	1	98	98	98	98	98	98	87.213
10. Nassarius albus	1	95	95	95	95	95	95	89.333
11. Prunum apicina	1	88	88	88	88	88	88	91.297
12. Callapa sulcata	1	85	85	85	85	85	85	93.193
13. Solenocera necopina	1	84	84	84	84	84	84	95.068
14. Squilla grenadensis	1	75	75	75	75	75	75	96.742
15. Conus mazei	1	44	44	44	44	44	44	97.724
16. Anadara baughmani	1	33	33	33	33	33	33	98.460
17. Crassispira ostrearum	1	19	19	19	19	19	19	98.884
18. Dromia erythropus	1	19	19	19	19	19	19	99.308
19. Myropsis quinquespinosa	1	19	19	19	19	19	19	99.732
20. Astropecten cingulatus	1	12	12	12	12	12	12	100.000

TOTAL # OBSERVATIONS = 1
TOTAL # OCCURRENCES = 20
TOTAL COUNT = 4481
CUM% BASED ON TOTAL

SORT BASED ON #OCC AND TOTAL

Demersal Fish Taxonomy

95

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PAGE

DEMERSAL FISHES OCCURENCE BY CRUISE, TRANSECT, AND STATION

CRU=87-BO TRAN=C STA=1

PARAMETERS

VARIABLE	#OCC	TOTAL	#/OCC	MEAN	MAX	MIN	MIN>O	CUM%
1. Bregmaceros atlanticus	1	97	97	97	97	97	97	36.330
2. Sphoeroides parvus	1	49	49	49	49	49	49	54.682
3. Symphurus plagiusa	1	34	34	34	34	34	34	67.416
4. Diplectrum bivittatum	1	10	10	10	10	10	10	71.161
5. Anchoa hepsetur	1	10	10	10	10	10	10	74.906
6. Etropus crossotus	1	9	9	9	9	9	9	78.277
7. Symphurus civitatus	1	9	9	9	9	9	9	81.648
8. Halieutichthys aculeatus	1	7	7	7	7	7	7	84.270
9. Synodus foetens	1	7	7	7	7	7	7	86.891
10. Lepophidium brevibarbe	1	5	5	5	5	5	5	88.764
11. Symphurus diomedianus	1	4	4	4	4	4	4	90.262
12. Syacium gunteri	1	4	4	4	4	4	4	91.760
13. Stenotomus caprinus	1	4	4	4	4	4	4	93.258
14. Prionotus rubio	1	4	4	4	4	4	4	94.757
15. Micropogonias undulatus	1	3	3	3	3	3	3	95.880
16. Gymnothorax nigromarginatu	1	3	3	3	3	3	3	97.004
17. Syngnathus louisianae	1	2	2	2	2	2	2	97.753
18. Leiostomus xanthurus	1	1	1	1	1	1	1	98.127
19. Paraconger caudilimbatus	1	1	1	1	1	1	1	98.502
20. Prionotus longispinosus	1	1	1	1	1	1	1	98.876
21. Scorpaena calcarata	1	1	1	1	1	1	1	99.251
22. Prionotus tribulus	1	1	1	1	1	1	1	99.625
23. Menidia peninsulae	1	1	1	1	1	1	1	100.000

TOTAL # OBSERVATIONS = 1
TOTAL # OCCURRENCES = 23
TOTAL COUNT = 267
CUM% BASED ON TOTAL

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PAGE

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                         DEMERSAL FISHES OCCURENCE BY CRUISE, TRANSECT, AND STATION

                                     CRU=87-BO TRAN=C STA=2

                                           PARAMETERS

                                    #OCC     TOTAL     #/OCC      MEAN      MAX       MIN      MIN>0       CUM%

VARIABLE
  1. Halieutichthys aculeatus         2       101      50.5      50.5      100         1         1      39.608
  2. Syacium gunteri                  2        28      14.0      14.0       27         1         1      50.588
  3. Engyophrys senta                 2        20      10.0      10.0       18         2         2      58.431
  4. Saurida brasiliensis             2        15       7.5       7.5       11         4         4      64.314
  5. Stenotomus caprinus              2        15       7.5       7.5       13         2         2      70.196
  6. Prionotus rubio                  2        10       5.0       5.0        6         4         4      74.118
  7. Syacium papillosum               2         9       4.5       4.5        7         2         2      77.647
  8. Centropristis philadelphica      2         7       3.5       3.5        5         2         2      80.392
  9. Synodus foetens                  2         7       3.5       3.5        4         3         3      83.137
 10. Scorpaena calcarata              1         7       7.0       3.5        7         0         7      85.882
 11. Porichthys plectrodon            1         5       5.0       2.5        5         0         5      87.843
 12. Serranus atrobranchus            1         4       4.0       2.0        4         0         4      89.412
 13. Pristipomoides aquilonaris       1         4       4.0       2.0        4         0         4      90.980
 14. Prionotus paralatus              1         4       4.0       2.0        4         0         4      92.549
 15. Symphurus parvus                 1         3       3.0       1.5        3         0         3      93.725
 16. Symphurus diomedianus            1         3       3.0       1.5        3         0         3      94.902
 17. Prionotus roseus                 1         2       2.0       1.0        2         0         2      95.686
 18. Etropus crossotus                1         2       2.0       1.0        2         0         2      96.471
 19. Trachinocephalus myops           1         2       2.0       1.0        2         0         2      97.255
 20. Prionotus ophryas                1         1       1.0       0.5        1         0         1      97.647
 21. Prionotus longispinosus          1         1       1.0       0.5        1         0         1      98.039
 22. Bellator brachychir              1         1       1.0       0.5        1         0         1      98.431
 23. Lutjanus campechanus             1         1       1.0       0.5        1         0         1      98.824
 24. Bellator militaris               1         1       1.0       0.5        1         0         1      99.216
 25. Scorpaena plumieri               1         1       1.0       0.5        1         0         1      99.608
 26. Trichopsetta ventralis           1         1       1.0       0.5        1         0         1     100.000


TOTAL # OBSERVATIONS =        2
TOTAL # OCCURRENCES =        35
TOTAL COUNT =      255
CUM% BASED ON TOTAL
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                         DEMERSAL FISHES OCCURENCE BY CRUISE, TRANSECT, AND STATION

                                         CRU=87-BO TRAN=C STA=3

                                              PARAMETERS

                                  #OCC    TOTAL    #/OCC    MEAN    MAX    MIN    MIN>0    CUM%

VARIABLE
  1. Halieutichthys aculeatus       1      240      240      240     240    240    240     54.670
  2. Serranus atrobranchus          1       69       69       69      69     69     69     70.387
  3. Trichopsetta ventralis         1       40       40       40      40     40     40     79.499
  4. Centropristis philadelphica    1       12       12       12      12     12     12     82.232
  5. Stenotomus caprinus            1        9        9        9       9      9      9     84.282
  6. Symphurus diomedianus          1        8        8        8       8      8      8     86.105
  7. Prionotus rubio                1        7        7        7       7      7      7     87.699
  8. Pristipomoides aquilonaris     1        6        6        6       6      6      6     89.066
  9. Ogcocephalus nasutus           1        6        6        6       6      6      6     90.433
 10. Hoplunnis macrurus             1        5        5        5       5      5      5     91.572
 11. Gymnachirus texae              1        5        5        5       5      5      5     92.711
 12. Synodus foetens                1        5        5        5       5      5      5     93.850
 13. Caulolatilus intermedius       1        5        5        5       5      5      5     94.989
 14. Engyophrys senta               1        4        4        4       4      4      4     95.900
 15. Citharichthys cornutus         1        3        3        3       3      3      3     96.583
 16. Kathetostoma albigutta         1        3        3        3       3      3      3     97.267
 17. Ancylopsetta dilecta           1        3        3        3       3      3      3     97.950
 18. Prionotus paralatus            1        2        2        2       2      2      2     98.405
 19. Hoplunnis tenuis               1        2        2        2       2      2      2     98.861
 20. Porichthys plectrodon          1        1        1        1       1      1      1     99.089
 21. Cynoscion arenarius            1        1        1        1       1      1      1     99.317
 22. Pontinus longispinis           1        1        1        1       1      1      1     99.544
 23. Monolene sessilcauda           1        1        1        1       1      1      1     99.772
 24. Antennarius radiosus           1        1        1        1       1      1      1    100.000


TOTAL # OBSERVATIONS =        1
TOTAL # OCCURRENCES =        24
TOTAL COUNT =      439
CUM% BASED ON TOTAL
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                         DEMERSAL FISHES OCCURENCE BY CRUISE, TRANSECT, AND STATION

                                          CRU=87-BO TRAN=C STA=4

                                              PARAMETERS

                                 #OCC     TOTAL      #/OCC      MEAN       MAX       MIN      MIN>O      CUM%

VARIABLE
   1. Pontinus longispinis          1        45         45        45        45        45        45     53.571
   2. Bathygadus macrops            1        16         16        16        16        16        16     72.619
   3. Bembrops anatirostris         1        12         12        12        12        12        12     86.905
   4. Coelorhynchus caribbaeus      1         5          5         5         5         5         5     92.857
   5. Urophycis cirrata             1         2          2         2         2         2         2     95.238
   6. Ariosoma balearicum           1         1          1         1         1         1         1     96.429
   7. Polymixia lowei               1         1          1         1         1         1         1     97.619
   8. Hildebrandia gracilior        1         1          1         1         1         1         1     98.810
   9. Lepophidium brevibarbe        1         1          1         1         1         1         1    100.000


TOTAL # OBSERVATIONS =        1
TOTAL # OCCURRENCES =        9
TOTAL COUNT =      84
CUM% BASED ON TOTAL
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                         DEMERSAL FISHES OCCURENCE BY CRUISE, TRANSECT, AND STATION

                                        CRU=87-BO TRAN=D STA=1

                                             PARAMETERS

                                 #OCC    TOTAL    #/OCC     MEAN     MAX      MIN    MIN>0     CUM%
VARIABLE
  1. Anchoa cubana                 1      311      311      311      311      311      311    61.829
  2. Diplectrum bivittatum         1       47       47       47       47       47       47    71.173
  3. Stenotomus caprinus           1       38       38       38       38       38       38    78.728
  4. Syacium papillosum            1       25       25       25       25       25       25    83.698
  5. Prionotus scitulus            1       15       15       15       15       15       15    86.680
  6. Synodus foetens               1        9        9        9        9        9        9    88.469
  7. Syacium gunteri               1        9        9        9        9        9        9    90.258
  8. Otophidium omostigmum         1        8        8        8        8        8        8    91.849
  9. Sphoeroides spengleri         1        6        6        6        6        6        6    93.042
 10. Diplectrum formosum           1        5        5        5        5        5        5    94.036
 11. Lepophidium spp.              1        5        5        5        5        5        5    95.030
 12. Ariopsis felis                1        5        5        5        5        5        5    96.024
 13. Prionotus longispinosus       1        4        4        4        4        4        4    96.819
 14. Orthopristis chrysoptera      1        3        3        3        3        3        3    97.416
 15. Anchoa hepsetus               1        3        3        3        3        3        3    98.012
 16. Ophidion holbrooki            1        2        2        2        2        2        2    98.410
 17. Cynoscion arenarius           1        1        1        1        1        1        1    98.608
 18. Saurida brasiliensis          1        1        1        1        1        1        1    98.807
 19. Symphurus piger               1        1        1        1        1        1        1    99.006
 20. Centropristis philadelphica   1        1        1        1        1        1        1    99.205
 21. Scorpaena calcarata           1        1        1        1        1        1        1    99.404
 22. Symphurus plagiusa            1        1        1        1        1        1        1    99.602
 23. Symphurus diomedianus         1        1        1        1        1        1        1    99.801
 24. Ophidion grayi                1        1        1        1        1        1        1   100.000


TOTAL # OBSERVATIONS =        1
TOTAL # OCCURRENCES =       24
TOTAL COUNT =      503
CUM% BASED ON TOTAL
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                         DEMERSAL FISHES OCCURENCE BY CRUISE, TRANSECT, AND STATION

                                       CRU=87-BO TRAN=D STA=2

                                    PARAMETERS

                                   #OCC    TOTAL     #/OCC      MEAN       MAX       MIN     MIN>0      CUM%
VARIABLE
  1. Synodus poeyi                    1       96        96        96        96        96        96    49.231
  2. Syacium papillosum               1       44        44        44        44        44        44    71.795
  3. Prionotus roseus                 1       22        22        22        22        22        22    83.077
  4. Prionotus longispinosus          1        8         8         8         8         8         8    87.179
  5. Halieutichthys aculeatus         1        7         7         7         7         7         7    90.769
  6. Ogcocephalus parvus              1        4         4         4         4         4         4    92.821
  7. Stenotomus caprinus              1        3         3         3         3         3         3    94.359
  8. Cyclopsetta fimbriata            1        2         2         2         2         2         2    95.385
  9. Bellator militaris               1        2         2         2         2         2         2    96.410
 10. Prionotus ophryas                1        1         1         1         1         1         1    96.923
 11. Gastropsetta frontalis           1        1         1         1         1         1         1    97.436
 12. Rhomboplites aurorubens          1        1         1         1         1         1         1    97.949
 13. Diplectrum bivittatum            1        1         1         1         1         1         1    98.462
 14. Gymnothorax nigromarginatu       1        1         1         1         1         1         1    98.974
 15. Synodus foetens                  1        1         1         1         1         1         1    99.487
 16. Trachinocephalus myops           1        1         1         1         1         1         1   100.000


TOTAL # OBSERVATIONS =        1
TOTAL # OCCURRENCES =       16
TOTAL COUNT =      195
CUM% BASED ON TOTAL
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                          DEMERSAL FISHES OCCURENCE BY CRUISE, TRANSECT, AND STATION

                                          CRU=87-80 TRAN=D STA=4

                                               PARAMETERS

                                #OCC     TOTAL     #/OCC     MEAN      MAX       MIN     MIN>0      CUM%

VARIABLE
  1. Macrorhamphosus gracilis     1        25        25        25        25        25        25     30.864
  2. Zalleutes mcgintyi           1        17        17        17        17        17        17     51.852
  3. Bembrops anatirostris        1        13        13        13        13        13        13     67.901
  4. Bathygadus macrops           1        10        10        10        10        10        10     80.247
  5. Lepophidium brevibarbe       1         5         5         5         5         5         5     86.420
  6. Pontinus longispinis         1         4         4         4         4         4         4     91.358
  7. Urophycis floridana          1         3         3         3         3         3         3     95.062
  8. Monolene sessilcauda         1         2         2         2         2         2         2     97.531
  9. Polymixia lowei              1         1         1         1         1         1         1     98.765
 10. Chlorophthalmus agassizi     1         1         1         1         1         1         1    100.000


TOTAL # OBSERVATIONS =        1
TOTAL # OCCURRENCES =        10
TOTAL COUNT =       81
CUM% BASED ON TOTAL
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                              DEMERSAL FISHES OCCURENCE BY CRUISE, TRANSECT, AND STATION

                                             CRU=87-BO TRAN=M STA=1

                                                   PARAMETERS

                                  #OCC      TOTAL      #/OCC      MEAN       MAX       MIN      MIN>0      CUM%

VARIABLE
  1. Micropogonias undulatus        1         28         28        28         28        28        28       24.779
  2. Haemulon aurolineatum          1         26         26        26         26        26        26       47.788
  3. Rhomboplites aurorubens        1         16         16        16         16        16        16       61.947
  4. Stenotomus caprinus            1         14         14        14         14        14        14       74.336
  5. Diplectrum bivittatum          1          6          6         6          6         6         6       79.646
  6. Leiostomus xanthurus           1          6          6         6          6         6         6       84.956
  7. Anchoa lyolepis                1          4          4         4          4         4         4       88.496
  8. Etropus crossotus              1          4          4         4          4         4         4       92.035
  9. Harengula jaguana              1          1          1         1          1         1         1       92.920
 10. Serraniculus pumulio           1          1          1         1          1         1         1       93.805
 11. Sphoeroides parvus             1          1          1         1          1         1         1       94.690
 12. Saurida brasiliensis           1          1          1         1          1         1         1       95.575
 13. Brevoortia gunteri             1          1          1         1          1         1         1       96.460
 14. Ophidion grayi                 1          1          1         1          1         1         1       97.345
 15. Citharichthys macrops          1          1          1         1          1         1         1       98.230
 16. Decapterus punctatus           1          1          1         1          1         1         1       99.115
 17. Syacium gunteri                1          1          1         1          1         1         1      100.000


TOTAL # OBSERVATIONS =         1
TOTAL # OCCURRENCES =        17
TOTAL COUNT =       113
CUM% BASED ON TOTAL
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                  DEMERSAL FISHES OCCURENCE BY CRUISE, TRANSECT, AND STATION

                                CRU=87-BO TRAN=M STA=2

                                      PARAMETERS

                                #OCC    TOTAL     #/OCC     MEAN      MAX      MIN     MIN>0      CUM%

VARIABLE
  1. Syacium papillosum           1       57        57        57       57       57       57      20.285
  2. Halieutichthys aculeatus     1       51        51        51       51       51       51      38.434
  3. Scorpaena calcarata          1       42        42        42       42       42       42      53.381
  4. Bellator militaris           1       38        38        38       38       38       38      66.904
  5. Prionotus longispinosus      1       17        17        17       17       17       17      72.954
  6. Porichthys plectrodon        1       14        14        14       14       14       14      77.936
  7. Stenotomus caprinus          1       13        13        13       13       13       13      82.562
  8. Synodus foetens              1        9         9         9        9        9        9      85.765
  9. Ogcocephalus parvus          1        6         6         6        6        6        6      87.900
 10. Mulloidichthys martinicus    1        5         5         5        5        5        5      89.680
 11. Micropogonias undulatus      1        3         3         3        3        3        3      90.747
 12. Centropristis philadelphica  1        3         3         3        3        3        3      91.815
 13. Prionotus paralatus          1        2         2         2        2        2        2      92.527
 14. Diplectrum bivittatum        1        2         2         2        2        2        2      93.238
 15. Gymnothorax saxicola         1        2         2         2        2        2        2      93.950
 16. Gymnachirus texae            1        2         2         2        2        2        2      94.662
 17. Lepophidium jeannae          1        2         2         2        2        2        2      95.374
 18. Prionotus ophryas            1        2         2         2        2        2        2      96.085
 19. Engyophrys senta             1        2         2         2        2        2        2      96.797
 20. Cynoscion arenarius          1        2         2         2        2        2        2      97.509
 21. Sphoeroides dorsalis         1        2         2         2        2        2        2      98.221
 22. Equetus umbrosus             1        1         1         1        1        1        1      98.577
 23. Leiostomus xanthurus         1        1         1         1        1        1        1      98.932
 24. Prionotus rubio              1        1         1         1        1        1        1      99.288
 25  Raja texana                  1        1         1         1        1        1        1      99.644
 26. Symphurus diomedianus        1        1         1         1        1        1        1     100.000


TOTAL # OBSERVATIONS =        1
TOTAL # OCCURRENCES =       26
TOTAL COUNT =      281
CUM% BASED ON TOTAL
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                          DEMERSAL FISHES OCCURENCE BY CRUISE, TRANSECT, AND STATION

                                         CRU=87-BO TRAN=M STA=3

                                               PARAMETERS

                                   #OCC     TOTAL     #/OCC     MEAN      MAX      MIN     MIN>0      CUM%

VARIABLE
  1. Prionotus alatus                1       255       255       255       255      255      255     37.890
  2. Halieutichthys aculeatus        1       135       135       135       135      135      135     57.949
  3. Prionotus roseus                1        37        37        37        37       37       37     63.447
  4. Leiostomus xanthurus            1        37        37        37        37       37       37     68.945
  5. Stenotomus caprinus             1        31        31        31        31       31       31     73.551
  6. Cynoscion arenarius             1        30        30        30        30       30       30     78.009
  7. Ogcocephalus nasutus            1        29        29        29        29       29       29     82.318
  8. Porichthys plectrodon           1        15        15        15        15       15       15     84.547
  9. Prionotus stearnsi              1        14        14        14        14       14       14     86.627
 10. Bembrops anatirostris           1        11        11        11        11       11       11     88.262
 11. Pontinus longispinis            1         8         8         8         8        8        8     89.450
 12. Symphurus diomedianus           1         8         8         8         8        8        8     90.639
 13. Centropristis philadelphica     1         8         8         8         8        8        8     91.828
 14. Peristedion gracile             1         7         7         7         7        7        7     92.868
 15. Coelorhynchus caribbaeus        1         7         7         7         7        7        7     93.908
 16. Micropogonias undulatus         1         6         6         6         6        6        6     94.799
 17. Ogcocepholus corniger           1         6         6         6         6        6        6     95.691
 18. Ancylopsetta dilecta            1         5         5         5         5        5        5     96.434
 19. Trichopsetta ventralis          1         5         5         5         5        5        5     97.177
 20. Paralichthys squamilentus       1         4         4         4         4        4        4     97.771
 21. Bathygadus macrops              1         4         4         4         4        4        4     98.366
 22. Urophycis floridana             1         4         4         4         4        4        4     98.960
 23. Scorpaena calcarata             1         3         3         3         3        3        3     99.406
 24. Serranus atrobranchus           1         2         2         2         2        2        2     99.703
 25. Pristipomoides aquilonaris      1         1         1         1         1        1        1     99.851
 26. Raja olseni                     1         1         1         1         1        1        1    100.000


TOTAL # OBSERVATIONS =        1
TOTAL # OCCURRENCES =       26
TOTAL COUNT =      673
CUM% BASED ON TOTAL
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                    DEMERSAL FISHES OCCURENCE BY CRUISE, TRANSECT, AND STATION

                                   CRU=87-B1 TRAN=C STA=1

                                         PARAMETERS

                               #OCC    TOTAL     #/OCC      MEAN      MAX      MIN     MIN>0      CUM%

VARIABLE
  1. Halieutichthys aculeatus    2      144       72.0      72.0       95       49        49    21.397
  2. Diplectrum bivittatum       2       79       39.5      39.5       47       32        32    33.135
  3. Etropus crossotus           2       26       13.0      13.0       18        8         8    36.999
  4. Prionotus rubio             2       10        5.0       5.0        6        4         4    38.484
  5. Stenotomus caprinus         2        8        4.0       4.0        5        3         3    39.673
  6. Lepophidium brevibarbe      2        6        3.0       3.0        5        1         1    40.565
  7. Ophidion welshi             2        4        2.0       2.0        2        2         2    41.159
  8. Syacium gunteri             1      172      172.0      86.0      172        0       172    66.716
  9. Syacium papillosum          1      150      150.0      75.0      150        0       150    89.004
 10. Symphurus plagiusa          1       34       34.0      17.0       34        0        34    94.056
 11. Symphurus civitatus         1       15       15.0       7.5       15        0        15    96.285
 12. Synodus foetens             1        3        3.0       1.5        3        0         3    96.731
 13. Leiostomus xanthurus        1        3        3.0       1.5        3        0         3    97.177
 14. Bairdiella chrysoura        1        3        3.0       1.5        3        0         3    97.623
 15. Sphoeroides spengleri       1        2        2.0       1.0        2        0         2    97.920
 16. Porichthys plectrodon       1        2        2.0       1.0        2        0         2    98.217
 17. Ogcocephalus sp.            1        1        1.0       0.5        1        0         1    98.366
 18. Prionotus longispinosus     1        1        1.0       0.5        1        0         1    98.514
 19. Scorpaena calcarata         1        1        1.0       0.5        1        0         1    98.663
 20. Symphurus diomedianus       1        1        1.0       0.5        1        0         1    98.811
 21. Cyclopsetta chittendeni     1        1        1.0       0.5        1        0         1    98.960
 22. Gymnothorax saxicola        1        1        1.0       0.5        1        0         1    99.108
 23. Lutjanus mahogoni           1        1        1.0       0.5        1        0         1    99.257
 24. Haemulon aurolineatum       1        1        1.0       0.5        1        0         1    99.406
 25. Menticirrhus americanus     1        1        1.0       0.5        1        0         1    99.554
 26. Micropogonias undulatus     1        1        1.0       0.5        1        0         1    99.703
 27. Sphoeroides parvus          1        1        1.0       0.5        1        0         1    99.851
 28. Selene vomer                1        1        1.0       0.5        1        0         1   100.000


TOTAL # OBSERVATIONS =       2
TOTAL # OCCURRENCES =      35
TOTAL COUNT =      673
CUM% BASED ON TOTAL
```

DEMERSAL FISHES OCCURENCE BY CRUISE, TRANSECT, AND STATION

CRU=87-B1 TRAN=C STA=2

PARAMETERS

VARIABLE	#OCC	TOTAL	#/OCC	MEAN	MAX	MIN	MIN>0	CUM%
1. Bollmannia communis	2	39	19.5	19.5	33	6	6	25.828
2. Gymnachirus texae	2	20	10.0	10.0	17	3	3	39.073
3. Symphurus civitatus	2	19	9.5	9.5	10	9	9	51.656
4. Serranus atrobranchus	2	14	7.0	7.0	9	5	5	60.927
5. Porichthys plectrodon	2	11	5.5	5.5	8	3	3	68.212
6. Stenotomus caprinus	2	8	4.0	4.0	7	1	1	73.510
7. Lepophidium brevibarbe	2	8	4.0	4.0	6	2	2	78.808
8. Synodus foetens	2	5	2.5	2.5	3	2	2	82.119
9. Trichopsetta sp.	2	3	1.5	1.5	2	1	1	84.106
10. Cyclopsetta chittendeni	1	6	6.0	3.0	6	0	6	88.079
11. Engyophrys senta	1	4	4.0	2.0	4	0	4	90.728
12. Prionotus rubio	1	3	3.0	1.5	3	0	3	92.715
13. Symphurus diomedianus	1	3	3.0	1.5	3	0	3	94.702
14. Symphurus plagiusa	1	2	2.0	1.0	2	0	2	96.026
15. Centropristis philadelphica	1	2	2.0	1.0	2	0	2	97.351
16. Syacium gunteri	1	1	1.0	0.5	1	0	1	98.013
17. Hoplunnis macrurus	1	1	1.0	0.5	1	0	1	98.675
18. Syacium papillosum	1	1	1.0	0.5	1	0	1	99.338
19. Bellator militaris	1	1	1.0	0.5	1	0	1	100.000

TOTAL # OBSERVATIONS = 2
TOTAL # OCCURRENCES = 28
TOTAL COUNT = 151
CUM% BASED ON TOTAL

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                                        DEMERSAL FISHES OCCURENCE BY CRUISE, TRANSECT, AND STATION

                                                     CRU=87-B1 TRAN=C STA=3

                                                          PARAMETERS

                                       #OCC      TOTAL      #/OCC       MEAN       MAX       MIN     MIN>O       CUM%

VARIABLE
  1. Halieutichthys aculeatus            2         288      144.0      144.0       248        40        40      31.648
  2. Trichopsetta ventralis              2         136       68.0       68.0        77        59        59      46.593
  3. Pontinus longispinis                2         115       57.5       57.5        80        35        35      59.231
  4. Serranus atrobranchus               2          92       46.0       46.0        64        28        28      69.341
  5. Centropristis philadelphica         2          23       11.5       11.5        13        10        10      71.868
  6. Urophycis cirrata                   2          10        5.0        5.0         7         3         3      72.967
  7. Bembrops anatirostris               2           8        4.0        4.0         6         2         2      73.846
  8. Caulolatilus intermedius            2           8        4.0        4.0         5         3         3      74.725
  9. Symphurus diomedianus               2           8        4.0        4.0         7         1         1      75.604
 10. Stenotomus caprinus                 2           7        3.5        3.5         6         1         1      76.374
 11. Brotula barbata                     2           7        3.5        3.5         4         3         3      77.143
 12. Neobythites gilli                   2           6        3.0        3.0         3         3         3      77.802
 13. Porichthys plectrodon               2           6        3.0        3.0         3         3         3      78.462
 14. Symphurus civitatus                 2           5        2.5        2.5         3         2         2      79.011
 15. Pristipomoides aquilonaris          2           3        1.5        1.5         2         1         1      79.341
 16. Antennarius radiosus                2           2        1.0        1.0         1         1         1      79.560
 17. Steindachneria argentea             1          51       51.0       25.5        51         0        51      85.165
 18. Bathygadus macrops                  1          43       43.0       21.5        43         0        43      89.890
 19. Prionotus paralatus                 1          37       37.0       18.5        37         0        37      93.956
 20. Ogcocephalus declivirostris         1          14       14.0        7.0        14         0        14      95.495
 21. Hemanthias vivanus                  1          11       11.0        5.5        11         0        11      96.703
 22. Prionotus alatus                    1           7        7.0        3.5         7         0         7      97.473
 23. Citharichthys cornutus              1           5        5.0        2.5         5         0         5      98.022
 24. Ogcocephalus nasutus                1           4        4.0        2.0         4         0         4      98.462
 25. Kyphosus sectatrix                  1           3        3.0        1.5         3         0         3      98.791
 26. Saurida brasiliensis                1           2        2.0        1.0         2         0         2      99.011
 27. Lagodon rhomboides                  1           1        1.0        0.5         1         0         1      99.121
 28. Trichiurus lepturus                 1           1        1.0        0.5         1         0         1      99.231
 29. Hildebrandia flava                  1           1        1.0        0.5         1         0         1      99.341
 30. Raja olseni                         1           1        1.0        0.5         1         0         1      99.451
 31. Prionotus stearnsi                  1           1        1.0        0.5         1         0         1      99.560
 32. Urophycis floridana                 1           1        1.0        0.5         1         0         1      99.670
 33. Physiculus fulvus                   1           1        1.0        0.5         1         0         1      99.780
 34. Etrumeus teres                      1           1        1.0        0.5         1         0         1      99.890
 35. Gymnachirus texae                   1           1        1.0        0.5         1         0         1     100.000


TOTAL # OBSERVATIONS =        2
TOTAL # OCCURRENCES =       51
TOTAL COUNT =     910
CUM% BASED ON TOTAL
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                    DEMERSAL FISHES OCCURENCE BY CRUISE, TRANSECT, AND STATION

                                  CRU=87-B1 TRAN=C STA=4

                                        PARAMETERS

                                   #OCC     TOTAL     #/OCC      MEAN      MAX      MIN     MIN>0      CUM%
VARIABLE
  1. Pontinus longispinis            2        95      47.5      47.5       93        2        2      59.748
  2. Bathygadus melaobranchus        1        32      32.0      16.0       32        0       32      79.874
  3. Urophycis cirrata               1        13      13.0       6.5       13        0       13      88.050
  4. Bembrops anatirostris           1         8       8.0       4.0        8        0        8      93.082
  5. Synagrops bellus                1         4       4.0       2.0        4        0        4      95.597
  6. Coelorhinchus coelorhinchus     1         2       2.0       1.0        2        0        2      96.855
  7. Monolene sessilcauda            1         2       2.0       1.0        2        0        2      98.113
  8. Neobythites gilli               1         1       1.0       0.5        1        0        1      98.742
  9. Peocilopsetta beani             1         1       1.0       0.5        1        0        1      99.371
 10. Polymixia lowei                 1         1       1.0       0.5        1        0        1     100.000


TOTAL # OBSERVATIONS =        2
TOTAL # OCCURRENCES =        11
TOTAL COUNT =      159
CUM% BASED ON TOTAL
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                    DEMERSAL FISHES OCCURENCE BY CRUISE, TRANSECT, AND STATION

                                  CRU=87-B1 TRAN=D STA=1

                                        PARAMETERS

                                   #OCC     TOTAL     #/OCC     MEAN     MAX     MIN     MIN>0      CUM%
VARIABLE
  1. Diplectrum formosum             2        11       5.5       5.5      8       3        3       15.942
  2. Syacium papillosum              2        10       5.0       5.0      7       3        3       30.435
  3. Chloroscombrus chrysurus        2         6       3.0       3.0      3       3        3       39.130
  4. Anchoa hepsetus                 2         6       3.0       3.0      3       3        3       47.826
  5. Sphoeroides parvus              2         4       2.0       2.0      2       2        2       53.623
  6. Trachinocephalus myops          2         4       2.0       2.0      2       2        2       59.420
  7. Etropus rimosus                 2         4       2.0       2.0      2       2        2       65.217
  8. Trachurus lathami               2         2       1.0       1.0      1       1        1       68.116
  9. Raja eglanteria                 2         2       1.0       1.0      1       1        1       71.014
 10. Etropus microstomus             1         6       6.0       3.0      6       0        6       79.710
 11. Diplectrum bivittatum           1         5       5.0       2.5      5       0        5       86.957
 12. Synodus foetens                 1         2       2.0       1.0      2       0        2       89.855
 13. Stenotomus caprinus             1         2       2.0       1.0      2       0        2       92.754
 14. Prionotus longispinosus         1         2       2.0       1.0      2       0        2       95.652
 15. Prionotus martis                1         1       1.0       0.5      1       0        1       97.101
 16. Ogcocepholus corniger           1         1       1.0       0.5      1       0        1       98.551
 17. Prionotus scitulus              1         1       1.0       0.5      1       0        1      100.000

TOTAL # OBSERVATIONS =        2
TOTAL # OCCURRENCES =        26
TOTAL COUNT =       69
CUM% BASED ON TOTAL
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DEMERSAL FISHES OCCURENCE BY CRUISE, TRANSECT, AND STATION

CRU=87-B1 TRAN=D STA=2

PARAMETERS

VARIABLE	#OCC	TOTAL	#/OCC	MEAN	MAX	MIN	MIN>0	CUM%
1. Syacium papillosum	2	87	43.5	43.5	78	9	9	27.188
2. Prionotus longispinosus	2	55	27.5	27.5	34	21	21	44.375
3. Halieutichthys aculeatus	2	24	12.0	12.0	20	4	4	51.875
4. Synodus foetens	2	16	8.0	8.0	9	7	7	56.875
5. Stenotomus caprinus	2	14	7.0	7.0	13	1	1	61.250
6. Centropristis philadelphica	2	12	6.0	6.0	8	4	4	65.000
7. Bellator militaris	2	7	3.5	3.5	6	1	1	67.188
8. Gymnothorax saxicola	2	4	2.0	2.0	3	1	1	68.438
9. 285 Ophichthus ocellatus	1	31	31.0	15.5	31	0	31	78.125
10. Centropristis ocyurus	1	21	21.0	10.5	21	0	21	84.688
11. Ogcocephalus parvus	1	15	15.0	7.5	15	0	15	89.375
12. Scorpaena calcarata	1	10	10.0	5.0	10	0	10	92.500
13. Lepophidium jeannae	1	8	8.0	4.0	8	0	8	95.000
14. Trachinocephalus myops	1	5	5.0	2.5	5	0	5	96.563
15. Urophycis floridana	1	2	2.0	1.0	2	0	2	97.188
16. Haemulon aurolineatum	1	2	2.0	1.0	2	0	2	97.813
17. Cyclopsetta fimbriata	1	1	1.0	0.5	1	0	1	98.125
18. Decapterus macarellus	1	1	1.0	0.5	1	0	1	98.438
19. Sphoeroides dorsalis	1	1	1.0	0.5	1	0	1	98.750
20. Echiophis intertinctus	1	1	1.0	0.5	1	0	1	99.063
21. Symphurus plagiusa	1	1	1.0	0.5	1	0	1	99.375
22. Gymnachirus melas	1	1	1.0	0.5	1	0	1	99.688
23. Paralichthys squamilentus	1	1	1.0	0.5	1	0	1	100.000

TOTAL # OBSERVATIONS = 2
TOTAL # OCCURRENCES = 31
TOTAL COUNT = 320
CUM% BASED ON TOTAL

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                      DEMERSAL FISHES OCCURENCE BY CRUISE, TRANSECT, AND STATION

                                    CRU=87-B1 TRAN=D STA=3

                                          PARAMETERS

                                  #OCC     TOTAL     #/OCC     MEAN      MAX       MIN      MIN>0      CUM%

VARIABLE
  1. Serranus notospilus            1        89        89        89        89        89        89      54.268
  2. Pontinus longispinis           1         6         6         6         6         6         6      57.927
  3. Prognathodes aya               1         6         6         6         6         6         6      61.585
  4. Equetus umbrosus               1         6         6         6         6         6         6      65.244
  5. Scorpaena dispar               1         5         5         5         5         5         5      68.293
  6. Halichoeres spp.               1         5         5         5         5         5         5      71.341
  7. Pristipomoides aquilonaris     1         5         5         5         5         5         5      74.390
  8. Apogon pseudomaculatus         1         4         4         4         4         4         4      76.829
  9. Halieutichthys aculeatus       1         4         4         4         4         4         4      79.268
 10. Scorpaena agassizi             1         4         4         4         4         4         4      81.707
 11. Ostichthys trachypoma          1         3         3         3         3         3         3      83.537
 12. Neobythites gilli              1         3         3         3         3         3         3      85.366
 13. Equetus Spp.                   1         3         3         3         3         3         3      87.195
 14. Cyclopsetta fimbriata          1         3         3         3         3         3         3      89.024
 15. Gymnothorax saxicola           1         2         2         2         2         2         2      90.244
 16. Prionotus paralatus            1         2         2         2         2         2         2      91.463
 17. Citharichthys cornutus         1         2         2         2         2         2         2      92.683
 18. Bellator egretta               1         2         2         2         2         2         2      93.902
 19. Lepophidium brevibarbe         1         1         1         1         1         1         1      94.512
 20. Fistularia petimba             1         1         1         1         1         1         1      95.122
 21. Lepophidium jeannae            1         1         1         1         1         1         1      95.732
 22. Equetus lanceolatus            1         1         1         1         1         1         1      96.341
 23. Muraena miliaris               1         1         1         1         1         1         1      96.951
 24. Pristigenys altas              1         1         1         1         1         1         1      97.561
 25. Hemanthias aureorubens         1         1         1         1         1         1         1      98.171
 26. Ogcocepholus corniger          1         1         1         1         1         1         1      98.780
 27. Urophycis earlli               1         1         1         1         1         1         1      99.390
 28. Centropristis philadelphica    1         1         1         1         1         1         1     100.000


TOTAL # OBSERVATIONS =        1
TOTAL # OCCURRENCES =       28
TOTAL COUNT =      164
CUM% BASED ON TOTAL
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1_2

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                              DEMERSAL FISHES OCCURENCE BY CRUISE, TRANSECT, AND STATION

                                           CRU=87-B1 TRAN=M STA=1

                                                 PARAMETERS

                                  #OCC    TOTAL    #/OCC     MEAN      MAX      MIN    MIN>O     CUM%

VARIABLE
  1. Chloroscombrus chrysurus       2      168     84.0      84.0      118       50       50    30.108
  2. Stenotomus caprinus            2      119     59.5      59.5       60       59       59    51.434
  3. Diplectrum bivittatum          2       98     49.0      49.0       85       13       13    68.996
  4. Etropus rimosus                2       21     10.5      10.5       20        1        1    72.760
  5. Synodus foetens                2       20     10.0      10.0       11        9        9    76.344
  6. Syacium gunteri                2       15      7.5       7.5       14        1        1    79.032
  7. Syacium papillosum             2       13      6.5       6.5        9        4        4    81.362
  8. Symphurus plagiusa             2        8      4.0       4.0        4        4        4    82.796
  9. Ariopsis felis                 2        7      3.5       3.5        4        3        3    84.050
 10. Trachurus lathami              2        7      3.5       3.5        5        2        2    85.305
 11. Anchoa hepsetus                1       43     43.0      21.5       43        0       43    93.011
 12. Sphoeroides parvus             1       11     11.0       5.5       11        0       11    94.982
 13. Halieutichthys aculeatus       1        4      4.0       2.0        4        0        4    95.699
 14. Sphyraena borealis             1        4      4.0       2.0        4        0        4    96.416
 15. Etropus crossotus              1        3      3.0       1.5        3        0        3    96.953
 16. Citharichthys spilopterus      1        3      3.0       1.5        3        0        3    97.491
 17. Symphurus civitatus            1        3      3.0       1.5        3        0        3    98.029
 18. Prionotus ophryas              1        2      2.0       1.0        2        0        2    98.387
 19. Prionotus roseus               1        2      2.0       1.0        2        0        2    98.746
 20. Lutjanus campechanus           1        1      1.0       0.5        1        0        1    98.925
 21. Lutjanus analis                1        1      1.0       0.5        1        0        1    99.104
 22. Prionotus longispinosus        1        1      1.0       0.5        1        0        1    99.283
 23. Saurida brasiliensis           1        1      1.0       0.5        1        0        1    99.462
 24. Urophycis floridana            1        1      1.0       0.5        1        0        1    99.642
 25. Symphurus diomedianus          1        1      1.0       0.5        1        0        1    99.821
 26. Caranx latus                   1        1      1.0       0.5        1        0        1   100.000


TOTAL # OBSERVATIONS =        2
TOTAL # OCCURRENCES =       36
TOTAL COUNT =     558
CUM% BASED ON TOTAL
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DEMERSAL FISHES OCCURENCE BY CRUISE, TRANSECT, AND STATION

CRU=87-B1 TRAN=M STA=2

PARAMETERS

VARIABLE	#OCC	TOTAL	#/OCC	MEAN	MAX	MIN	MIN>O	CUM%
1. Halieutichthys aculeatus	2	68	34.0	34.0	63	5	5	11.584
2. Saurida brasiliensis	2	66	33.0	33.0	65	1	1	22.828
3. Porichthys plectrodon	2	62	31.0	31.0	60	2	2	33.390
4. Etropus rimosus	2	24	12.0	12.0	23	1	1	37.479
5. Bellator militaris	2	9	4.5	4.5	7	2	2	39.012
6. Prionotus stearnsi	2	7	3.5	3.5	5	2	2	40.204
7. Symphurus diomedianus	2	5	2.5	2.5	4	1	1	41.056
8. Prionotus rubio	2	2	1.0	1.0	1	1	1	41.397
9. Monacanthus hispidus	2	2	1.0	1.0	1	1	1	41.738
10. Cyclopsetta chittendeni	2	2	1.0	1.0	1	1	1	42.078
11. Syacium papillosum	1	166	166.0	83.0	166	0	166	70.358
12. Diplectrum bivittatum	1	47	47.0	23.5	47	0	47	78.365
13. Symphurus plagiusa	1	34	34.0	17.0	34	0	34	84.157
14. Symphurus civitatus	1	15	15.0	7.5	15	0	15	86.712
15. Pristipomoides aquilonaris	1	13	13.0	6.5	13	0	13	88.927
16. Etropus crossotus	1	10	10.0	5.0	10	0	10	90.630
17. Stenotomus caprinus	1	8	8.0	4.0	8	0	8	91.993
18. Synodus foetens	1	7	7.0	3.5	7	0	7	93.186
19. Symphurus parvus	1	7	7.0	3.5	7	0	7	94.378
20. Lepophidium brevibarbe	1	5	5.0	2.5	5	0	5	95.230
21. Raja texana	1	3	3.0	1.5	3	0	3	95.741
22. Scorpaena calcarata	1	3	3.0	1.5	3	0	3	96.252
23. Bairdiella chrysoura	1	3	3.0	1.5	3	0	3	96.763
24. Leiostomus xanthurus	1	3	3.0	1.5	3	0	3	97.274
25. Chloroscombrus chrysurus	1	2	2.0	1.0	2	0	2	97.615
26. Ophidion welshi	1	2	2.0	1.0	2	0	2	97.956
27. Equetus Spp.	1	2	2.0	1.0	2	0	2	98.296
28. Serranus atrobranchus	1	2	2.0	1.0	2	0	2	98.637
29. Ogcocephalus sp.	1	1	1.0	0.5	1	0	1	98.807
30. Gymnothorax saxicola	1	1	1.0	0.5	1	0	1	98.978
31. Diplectrum formosum	1	1	1.0	0.5	1	0	1	99.148
32. Haemulon aurolineatum	1	1	1.0	0.5	1	0	1	99.319
33. Sphoeroides parvus	1	1	1.0	0.5	1	0	1	99.489
34. Trachinocephalus myops	1	1	1.0	0.5	1	0	1	99.659
35. Micropogonias undulatus	1	1	1.0	0.5	1	0	1	99.830
36. Prionotus longispinosus	1	1	1.0	0.5	1	0	1	100.000

TOTAL # OBSERVATIONS = 2
TOTAL # OCCURRENCES = 46
TOTAL COUNT = 587
CUM% BASED ON TOTAL

DEMERSAL FISHES OCCURENCE BY CRUISE, TRANSECT, AND STATION

CRU=87-B1 TRAN=M STA=3

PARAMETERS

VARIABLE	#OCC	TOTAL	#/OCC	MEAN	MAX	MIN	MIN>0	CUM%
1. Porichthys plectrodon	2	34	17.0	17.0	27	7	7	15.962
2. Serranus atrobranchus	2	23	11.5	11.5	21	2	2	26.761
3. Trichopsetta ventralis	2	19	9.5	9.5	11	8	8	35.681
4. Ogcocephalus declivirostris	2	17	8.5	8.5	13	4	4	43.662
5. Prionotus rubio	2	13	6.5	6.5	12	1	1	49.765
6. Centropristis philadelphica	2	12	6.0	6.0	10	2	2	55.399
7. Urophycis floridana	2	9	4.5	4.5	6	3	3	59.624
8. Pontinus longispinis	2	9	4.5	4.5	5	4	4	63.850
9. Prionotus paralatus	1	23	23.0	11.5	23	0	23	74.648
10. Stenotomus caprinus	1	14	14.0	7.0	14	0	14	81.221
11. Hoplunnis tenuis	1	6	6.0	3.0	6	0	6	84.038
12. Symphurus diomedianus	1	5	5.0	2.5	5	0	5	86.385
13. Micropogonias undulatus	1	4	4.0	2.0	4	0	4	88.263
14. Gymnachirus texae	1	4	4.0	2.0	4	0	4	90.141
15. Bembrops anatirostris	1	3	3.0	1.5	3	0	3	91.549
16. Pristipomoides aquilonaris	1	3	3.0	1.5	3	0	3	92.958
17. Etropus crossotus	1	2	2.0	1.0	2	0	2	93.897
18. Neobythites gilli	1	2	2.0	1.0	2	0	2	94.836
19. Lepophidium jeannae	1	1	1.0	0.5	1	0	1	95.305
20. Synodus foetens	1	1	1.0	0.5	1	0	1	95.775
21. Caulolatilus intermedius	1	1	1.0	0.5	1	0	1	96.244
22. Ogcocepholus corniger	1	1	1.0	0.5	1	0	1	96.714
23. Symphurus piger	1	1	1.0	0.5	1	0	1	97.183
24. Brotula barbata	1	1	1.0	0.5	1	0	1	97.653
25. Physiculus fulvus	1	1	1.0	0.5	1	0	1	98.122
·26. Hildebrandia flava	1	1	1.0	0.5	1	0	1	98.592
27. Cynoscion arenarius	1	1	1.0	0.5	1	0	1	99.061
28. Symphurus civitatus	1	1	1.0	0.5	1	0	1	99.531
29. Urophycis cirrata	1	1	1.0	0.5	1	0	1	100.000

TOTAL # OBSERVATIONS = 2
TOTAL # OCCURRENCES = 37
TOTAL COUNT = 213
CUM% BASED ON TOTAL

DEMERSAL FISHES OCCURENCE BY CRUISE, TRANSECT, AND STATION

CRU=87-B1 TRAN=M STA=4

PARAMETERS

VARIABLE	#OCC	TOTAL	#/OCC	MEAN	MAX	MIN	MIN>O	CUM%
1. Coelorhynchus caribbaeus	2	44	22.0	22.0	42	2	2	39.286
2. Porichthys plectrodon	2	8	4.0	4.0	7	1	1	46.429
3. Bembrops anatirostris	2	3	1.5	1.5	2	1	1	49.107
4. Neobythites gilli	2	3	1.5	1.5	2	1	1	51.786
5. Pontinus longispinis	1	13	13.0	6.5	13	0	13	63.393
6. Monolene sessilcauda	1	11	11.0	5.5	11	0	11	73.214
7. Trichopsetta ventralis	1	5	5.0	2.5	5	0	5	77.679
8. Urophycis cirrata	1	5	5.0	2.5	5	0	5	82.143
9. Stenotomus caprinus	1	3	3.0	1.5	3	0	3	84.821
10. Serranus atrobranchus	1	2	2.0	1.0	2	0	2	86.607
11. Antennarius radiosus	1	2	2.0	1.0	2	0	2	88.393
12. Paralichthys albigutta	1	2	2.0	1.0	2	0	2	90.179
13. Symphurus piger	1	2	2.0	1.0	2	0	2	91.964
14. Myrophis punctatus	1	1	1.0	0.5	1	0	1	92.857
15. Macrorhamphosus scolopax	1	1	1.0	0.5	1	0	1	93.750
16. Urophycis floridana	1	1	1.0	0.5	1	0	1	94.643
17. Hoplunnis macrurus	1	1	1.0	0.5	1	0	1	95.536
18. Centropristis philadelphica	1	1	1.0	0.5	1	0	1	96.429
19. Ogcocephalus declivirostris	1	1	1.0	0.5	1	0	1	97.321
20. Prionotus rubio	1	1	1.0	0.5	1	0	1	98.214
21. Peristedion gracile	1	1	1.0	0.5	1	0	1	99.107
22. Halieutichthys aculeatus	1	1	1.0	0.5	1	0	1	100.000

TOTAL # OBSERVATIONS = 2
TOTAL # OCCURRENCES = 26
TOTAL COUNT = 112
CUM% BASED ON TOTAL

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                 DEMERSAL FISHES OCCURENCE BY CRUISE, TRANSECT, AND STATION

                                CRU=87-B2 TRAN=C STA=1

                                      PARAMETERS

                                   #OCC     TOTAL    #/OCC     MEAN     MAX     MIN     MIN>O      CUM%

VARIABLE
  1. Anchoa mitchilli                 2       305    152.5    152.5     180     125       125    36.880
  2. Peprilus burti                   2       240    120.0    120.0     177      63        63    65.901
  3. Anchoa hepsetus                  2        61     30.5     30.5      40      21        21    73.277
  4. Halieutichthys aculeatus         2        50     25.0     25.0      29      21        21    79.323
  5. Stenotomus caprinus              2        40     20.0     20.0      25      15        15    84.160
  6. Symphurus plagiusa               2        17      8.5      8.5      11       6         6    86.215
  7. Ogcocephalus parvus              2        10      5.0      5.0       8       2         2    87.424
  8. Sphoeroides parvus               2         8      4.0      4.0       4       4         4    88.392
  9. Antennarius radiosus             2         3      1.5      1.5       2       1         1    88.755
 10. Ophidion welshi                  2         2      1.0      1.0       1       1         1    88.996
 11. Saurida brasiliensis             2         2      1.0      1.0       1       1         1    89.238
 12. Diplectrum bivittatum            1        49     49.0     24.5      49       0        49    95.163
 13. Serranus atrobranchus            1        21     21.0     10.5      21       0        21    97.703
 14. Gnathophis bathytopas            1         3      3.0      1.5       3       0         3    98.065
 15. Ariopsis felis                   1         2      2.0      1.0       2       0         2    98.307
 16. Prionotus tribulus               1         2      2.0      1.0       2       0         2    98.549
 17. Etropus crossotus                1         2      2.0      1.0       2       0         2    98.791
 18. Ancylopsetta quadrocellata       1         2      2.0      1.0       2       0         2    99.033
 19. Archosargus probatocephalus      1         1      1.0      0.5       1       0         1    99.154
 20. Synodus foetens                  1         1      1.0      0.5       1       0         1    99.274
 21. Trichiurus lepturus              1         1      1.0      0.5       1       0         1    99.395
 22. Scorpaena calcarata              1         1      1.0      0.5       1       0         1    99.516
 23. Cynoscion arenarius              1         1      1.0      0.5       1       0         1    99.637
 24. Serraniculus pumulio             1         1      1.0      0.5       1       0         1    99.758
 25. Zalieutes mcgirtyi               1         1      1.0      0.5       1       0         1    99.879
 26. Prionotus longispinosus          1         1      1.0      0.5       1       0         1   100.000


TOTAL # OBSERVATIONS =       2
TOTAL # OCCURRENCES =       37
TOTAL COUNT =     827
CUM% BASED ON TOTAL
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DEMERSAL FISHES OCCURENCE BY CRUISE, TRANSECT, AND STATION

CRU=87-B2 TRAN=C STA=2

PARAMETERS

VARIABLE	#OCC	TOTAL	#/OCC	MEAN	MAX	MIN	MIN>0	CUM%
1. Saurida brasiliensis	2	23	11.5	11.5	18	5	5	25.275
2. Antennarius radiosus	2	8	4.0	4.0	5	3	3	34.066
3. Peprilus burti	2	6	3.0	3.0	5	1	1	40.659
4. Serranus atrobranchus	2	4	2.0	2.0	3	1	1	45.055
5. Cynoscion arenarius	2	3	1.5	1.5	2	1	1	48.352
6. Syacium gunteri	2	2	1.0	1.0	1	1	1	50.549
7. Stenotomus caprinus	1	11	11.0	5.5	11	0	11	62.637
8. Bathygobius soporator	1	9	9.0	4.5	9	0	9	72.527
9. Synodus foetens	1	3	3.0	1.5	3	0	3	75.824
10. Bollmannia communis	1	3	3.0	1.5	3	0	3	79.121
11. Syacium papillosum	1	2	2.0	1.0	2	0	2	81.319
12. Bellator militaris	1	2	2.0	1.0	2	0	2	83.516
13. Halieutichthys aculeatus	1	2	2.0	1.0	2	0	2	85.714
14. Symphurus civitatus	1	2	2.0	1.0	2	0	2	87.912
15. Prionotus stearnsi	1	1	1.0	0.5	1	0	1	89.011
16. Urophycis cirrata	1	1	1.0	0.5	1	0	1	90.110
17. Sphoeroides parvus	1	1	1.0	0.5	1	0	1	91.209
18. Porichthys plectrodon	1	1	1.0	0.5	1	0	1	92.308
19. Scorpaena calcarata	1	1	1.0	0.5	1	0	1	93.407
20. Prionotus tribulus	1	1	1.0	0.5	1	0	1	94.505
21. Symphurus plagiusa	1	1	1.0	0.5	1	0	1	95.604
22. Centropristis philadelphica	1	1	1.0	0.5	1	0	1	96.703
23. Nec Conger.mueronatus	1	1	1.0	0.5	1	0	1	97.802
24. Engyophrys senta	1	1	1.0	0.5	1	0	1	98.901
25. Equetus umbrosus	1	1	1.0	0.5	1	0	1	100.000

TOTAL # OBSERVATIONS = 2
TOTAL # OCCURRENCES = 31
TOTAL COUNT = 91
CUM% BASED ON TOTAL

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DEMERSAL FISHES OCCURENCE BY CRUISE, TRANSECT, AND STATION

CRU-87-B2 TRAN=C STA=3

PARAMETERS

VARIABLE	#OCC	TOTAL	#/OCC	MEAN	MAX	MIN	MIN>O	CUM%
1. Halieutichthys aculeatus	2	109	54.5	54.5	78	31	31	24.661
2. Trichopsetta ventralis	2	102	51.0	51.0	54	48	48	47.738
3. Serranus atrobranchus	2	75	37.5	37.5	47	28	28	64.706
4. Ogcocephalus declivirostris	2	31	15.5	15.5	21	10	10	71.719
5. Porichthys plectrodon	2	22	11.0	11.0	12	10	10	76.697
6. Hildebrandia flava	2	16	8.0	8.0	11	5	5	80.317
7. Neobythites gilli	2	10	5.0	5.0	8	2	2	82.579
8. Symphurus civitatus	2	10	5.0	5.0	8	2	2	84.842
9. Centropristis philadelphica	2	9	4.5	4.5	5	4	4	86.878
10. Monolene sessilcauda	2	6	3.0	3.0	4	2	2	88.235
11. Antennarius radiosus	2	5	2.5	2.5	4	1	1	89.367
12. Ancylopsetta dilecta	2	5	2.5	2.5	4	1	1	90.498
13. Brotula barbata	2	4	2.0	2.0	3	1	1	91.403
14. Prionotus rubio	2	3	1.5	1.5	2	1	1	92.081
15. Bembrops anatirostris	2	3	1.5	1.5	2	1	1	92.760
16. Pontinus longispinis	1	14	14.0	7.0	14	0	14	95.928
17. Hemanthias leptus	1	6	6.0	3.0	6	0	6	97.285
18. Paralichthys squamilentus	1	2	2.0	1.0	2	0	2	97.738
19. Hoplunnis tenuis	1	2	2.0	1.0	2	0	2	98.190
20. Urophycis floridana	1	1	1.0	0.5	1	0	1	98.416
21. Synodus foetens	1	1	1.0	0.5	1	0	1	98.643
22. Raja olseni	1	1	1.0	0.5	1	0	1	98.869
23. Urophycis cirrata	1	1	1.0	0.5	1	0	1	99.095
24. Symphurus diomedianus	1	1	1.0	0.5	1	0	1	99.321
25. Ogcocepholus corniger	1	1	1.0	0.5	1	0	1	99.548
26. Physiculus fulvus	1	1	1.0	0.5	1	0	1	99.774
27. Bathygadus melaobranchus	1	1	1.0	0.5	1	0	1	100.000

TOTAL # OBSERVATIONS = 2
TOTAL # OCCURRENCES = 42
TOTAL COUNT = 442
CUM% BASED ON TOTAL

DEMERSAL FISHES OCCURENCE BY CRUISE, TRANSECT, AND STATION

CRU=87-B2 TRAN=C STA=4

PARAMETERS

VARIABLE	#OCC	TOTAL	#/OCC	MEAN	MAX	MIN	MIN>0	CUM%
1. Coelorhynchus caribbaeus	2	266	133.0	133.0	236	30	30	48.629
2. Pontinus longispinis	2	109	54.5	54.5	64	45	45	68.556
3. Monolene sessilcauda	2	31	15.5	15.5	20	11	11	74.223
4. Symphurus civitatus	2	21	10.5	10.5	11	10	10	78.062
5. Trichopsetta ventralis	2	18	9.0	9.0	16	2	2	81.353
6. Urophycis cirrata	2	11	5.5	5.5	10	1	1	83.364
7. Bembrops anatirostris	2	8	4.0	4.0	5	3	3	84.826
8. Antennarius radiosus	2	4	2.0	2.0	2	2	2	85.558
9. Neobythites gilli	2	4	2.0	2.0	2	2	2	86.289
10. Ancylopsetta dilecta	2	3	1.5	1.5	2	1	1	86.837
11. Hildebrandia flava	2	2	1.0	1.0	1	1	1	87.203
12. Bathygadus macrops	1	26	26.0	13.0	26	0	26	91.956
13. Bathygadus melaobranchus	1	23	23.0	11.5	23	0	23	96.161
14. Gymnachirus texae	1	3	3.0	1.5	3	0	3	96.709
15. Centropristis philadelphica	1	3	3.0	1.5	3	0	3	97.258
16. Porichthys plectrodon	1	3	3.0	1.5	3	0	3	97.806
17. Myrophis punctatus	1	3	3.0	1.5	3	0	3	98.355
18. Hoplunnis tenuis	1	2	2.0	1.0	2	0	2	98.720
19. Brotula barbata	1	1	1.0	0.5	1	0	1	98.903
20. Paralichthys squamilentus	1	1	1.0	0.5	1	0	1	99.086
21. Cynoscion arenarius	1	1	1.0	0.5	1	0	1	99.269
22. Lepophidium brevibarbe	1	1	1.0	0.5	1	0	1	99.452
23. Neomerinthe hemingwayi	1	1	1.0	0.5	1	0	1	99.634
24. Physiculus fulvus	1	1	1.0	0.5	1	0	1	99.817
25. Raja olseni	1	1	1.0	0.5	1	0	1	100.000

TOTAL # OBSERVATIONS = 2
TOTAL # OCCURRENCES = 36
TOTAL COUNT = 547
CUM% BASED ON TOTAL

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                              DEMERSAL FISHES OCCURENCE BY CRUISE, TRANSECT, AND STATION

                                             CRU=87-B2 TRAN=D STA=1

                                                  PARAMETERS

                                   #OCC      TOTAL      #/OCC      MEAN      MAX      MIN      MIN>0      CUM%

VARIABLE
  1. Prionotus scitulus              2         36       18.0       18.0      29        7         7       36.364
  2. Stenotomus caprinus             2         16        8.0        8.0       9        7         7       52.525
  3. Urophycis floridana             2         14        7.0        7.0       8        6         6       66.667
  4. Etropus microstomus             2          5        2.5        2.5       3        2         2       71.717
  5. Ariopsis felis                  2          3        1.5        1.5       2        1         1       74.747
  6. Diplectrum bivittatum           1          7        7.0        3.5       7        0         7       81.818
  7. Orthopristis chrysoptera        1          6        6.0        3.0       6        0         6       87.879
  8. Citharichthys macrops           1          3        3.0        1.5       3        0         3       90.909
  9. Syacium papillosum              1          2        2.0        1.0       2        0         2       92.929
 10. Aluterus schoepfi               1          1        1.0        0.5       1        0         1       93.939
 11. Synodus foetens                 1          1        1.0        0.5       1        0         1       94.949
 12. Raja eglanteria                 1          1        1.0        0.5       1        0         1       95.960
 13. Trachinocephalus myops          1          1        1.0        0.5       1        0         1       96.970
 14. Ophidion beani                  1          1        1.0        0.5       1        0         1       97.980
 15. Etropus rimosus                 1          1        1.0        0.5       1        0         1       98.990
 16. Diplectrum formosum             1          1        1.0        0.5       1        0         1      100.000

TOTAL # OBSERVATIONS =        2
TOTAL # OCCURRENCES =       21
TOTAL COUNT =       99
CUM% BASED ON TOTAL
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DEMERSAL FISHES OCCURENCE BY CRUISE, TRANSECT, AND STATION

CRU=87-B2 TRAN=D STA=2

PARAMETERS

VARIABLE	#OCC	TOTAL	#/OCC	MEAN	MAX	MIN	MIN>0	CUM%
1. Prionotus roseus	2	41	20.5	20.5	37	4	4	36.607
2. Prionotus longispinosus	2	20	10.0	10.0	18	2	2	54.464
3. Synodus intermedius	2	19	9.5	9.5	18	1	1	71.429
4. Syacium papillosum	2	7	3.5	3.5	6	1	1	77.679
5. Scorpaena calcarata	2	2	1.0	1.0	1	1	1	79.464
6. Halieutichthys aculeatus	1	9	9.0	4.5	9	0	9	87.500
7. Centropristis ocyurus	1	6	6.0	3.0	6	0	6	92.857
8. Antennarius radiosus	1	3	3.0	1.5	3	0	3	95.536
9. Kathetostoma albigutta	1	1	1.0	0.5	1	0	1	96.429
10. Scorpaena dispar	1	1	1.0	0.5	1	0	1	97.321
11. Peocilopsetta beani	1	1	1.0	0.5	1	0	1	98.214
12. Prionotus alatus	1	1	1.0	0.5	1	0	1	99.107
13. Ogcocephalus parvus	1	1	1.0	0.5	1	0	1	100.000

TOTAL # OBSERVATIONS = 2
TOTAL # OCCURRENCES = 18
TOTAL COUNT = 112
CUM% BASED ON TOTAL

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                                        DEMERSAL FISHES OCCURENCE BY CRUISE, TRANSECT, AND STATION

                                                    CRU=87-B2 TRAN=D STA=3

                                                        PARAMETERS

                                       #OCC      TOTAL      #/OCC      MEAN      MAX        MIN      MIN>O      CUM%

VARIABLE
   1. Serranus notospilus               2          70        35.0      35.0       37         33         33      32.710
   2. Pristipomoides aquilonaris        2          35        17.5      17.5       30          5          5      49.065
   3. Halieutichthys aculeatus          2          15         7.5       7.5        8          7          7      56.075
   4. Syacium papillosum                2          15         7.5       7.5       10          5          5      63.084
   5. Prionotus alatus                  2          11         5.5       5.5        6          5          5      68.224
   6. Urophycis floridana               2           4         2.0       2.0        2          2          2      70.093
   7. Kathetostoma albigutta            2           3         1.5       1.5        2          1          1      71.495
   8. Porichthys plectrodon             2           3         1.5       1.5        2          1          1      72.897
   9. Lepophidium jeannae               2           2         1.0       1.0        1          1          1      73.832
  10. Scorpaena brasiliensis            1          13        13.0       6.5       13          0         13      79.907
  11. Scorpaena agassizi                1          12        12.0       6.0       12          0         12      85.514
  12. Gymnothorax nigromarginatu        1           5         5.0       2.5        5          0          5      87.850
  13. Polyipnus asteroides              1           5         5.0       2.5        5          0          5      90.187
  14. Synagrops bellus                  1           3         3.0       1.5        3          0          3      91.589
  15. Cyclopsetta fimbriata             1           2         2.0       1.0        2          0          2      92.523
  16. Lepophidium brevibarbe            1           2         2.0       1.0        2          0          2      93.458
  17. Synodus intermedius               1           2         2.0       1.0        2          0          2      94.393
  18. Gymnothorax ocellatus             1           2         2.0       1.0        2          0          2      95.327
  19. Equetus Spp.                      1           1         1.0       0.5        1          0          1      95.794
  20. Pontinus longispinis              1           1         1.0       0.5        1          0          1      96.262
  21. Equetus umbrosus                  1           1         1.0       0.5        1          0          1      96.729
  22. Monolene sessilcauda              1           1         1.0       0.5        1          0          1      97.196
  23. Paralichthys squamilentus         1           1         1.0       0.5        1          0          1      97.664
  24. Equetus lanceolatus               1           1         1.0       0.5        1          0          1      98.131
  25. Gymnachirus melas                 1           1         1.0       0.5        1          0          1      98.598
  26. Equetus acuminatus                1           1         1.0       0.5        1          0          1      99.065
  27. Bathygadus melaobranchus          1           1         1.0       0.5        1          0          1      99.533
  28. Saurida normani                   1           1         1.0       0.5        1          0          1     100.000


TOTAL # OBSERVATIONS =       2
TOTAL # OCCURRENCES =      37
TOTAL COUNT =      214
CUM% BASED ON TOTAL
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DEMERSAL FISHES OCCURENCE BY CRUISE, TRANSECT, AND STATION

CRU=87-B2 TRAN=D STA=4

PARAMETERS

VARIABLE	#OCC	TOTAL	#/OCC	MEAN	MAX	MIN	MIN>O	CUM%
1. Polyipnus asteroides	2	75	37.5	37.5	59	16	16	29.070
2. Coelorhynchus caribbaeus	2	52	26.0	26.0	36	16	16	49.225
3. Bathygadus macrops	2	32	16.0	16.0	24	8	8	61.628
4. Bembrops anatirostris	2	19	9.5	9.5	14	5	5	68.992
5. Peocilopsetta beani	2	14	7.0	7.0	9	5	5	74.419
6. Parasudis truculentus	2	13	6.5	6.5	9	4	4	79.457
7. Pontinus longispinis	2	7	3.5	3.5	4	3	3	82.171
8. Zalieutes mcgintyi	2	7	3.5	3.5	6	1	1	84.884
9. Urophycis floridana	2	6	3.0	3.0	4	2	2	87.209
10. Monolene sessilcauda	2	6	3.0	3.0	5	1	1	89.535
11. Nettastomatid eel	2	5	2.5	2.5	3	2	2	91.473
12. Neobythites gilli	2	5	2.5	2.5	4	1	1	93.411
13. Argentina striata	2	2	1.0	1.0	1	1	1	94.186
14. Macrorhamphosus scolopax	1	7	7.0	3.5	7	0	7	96.899
15. Polymixia lowei	1	3	3.0	1.5	3	0	3	98.062
16. Trichiurus lepturus	1	1	1.0	0.5	1	0	1	98.450
17. Echiosestoma barbatum	1	1	1.0	0.5	1	0	1	98.837
18. Merluccius albidus	1	1	1.0	0.5	1	0	1	99.225
19. Stenotomus caprinus	1	1	1.0	0.5	1	0	1	99.612
20. Gnathagnus egregius	1	1	1.0	0.5	1	0	1	100.000

TOTAL # OBSERVATIONS = 2
TOTAL # OCCURRENCES = 33
TOTAL COUNT = 258
CUM% BASED ON TOTAL

DEMERSAL FISHES OCCURENCE BY CRUISE, TRANSECT, AND STATION

CRU=87-B2 TRAN=M STA=1

PARAMETERS

VARIABLE	#OCC	TOTAL	#/OCC	MEAN	MAX	MIN	MIN>0	CUM%
1. Serranus atrobranchus	2	27	13.5	13.5	22	5	5	16.564
2. Anchoa hepsetus	2	17	8.5	8.5	13	4	4	26.994
3. Etropus microstomus	2	13	6.5	6.5	11	2	2	34.969
4. Prionotus scitulus	2	10	5.0	5.0	8	2	2	41.104
5. Orthopristis chrysoptera	2	9	4.5	4.5	6	3	3	46.626
6. Syacium papillosum	2	9	4.5	4.5	5	4	4	52.147
7. Sphoeroides parvus	2	6	3.0	3.0	4	2	2	55.828
8. Symphurus plagiusa	2	4	2.0	2.0	3	1	1	58.282
9. Ophidion welshi	2	4	2.0	2.0	3	1	1	60.736
10. Synodus foetens	2	4	2.0	2.0	3	1	1	63.190
11. Peprilus burti	1	28	28.0	14.0	28	0	28	80.368
12. Prionotus longispinosus	1	6	6.0	3.0	6	0	6	84.049
13. Symphurus civitatus	1	6	6.0	3.0	6	0	6	87.730
14. Ariopsis felis	1	3	3.0	1.5	3	0	3	89.571
15. Scorpaena calcarata	1	3	3.0	1.5	3	0	3	91.411
16. Etropus crossotus	1	2	2.0	1.0	2	0	2	92.638
17. Etropus rimosus	1	1	1.0	0.5	1	0	1	93.252
18. Urophycis floridana	1	1	1.0	0.5	1	0	1	93.865
19. Serraniculus pumulio	1	1	1.0	0.5	1	0	1	94.479
20. Halieutichthys aculeatus	1	1	1.0	0.5	1	0	1	95.092
21. Syacium gunteri	1	1	1.0	0.5	1	0	1	95.706
22. Citharichthys macrops	1	1	1.0	0.5	1	0	1	96.319
23. Ariosoma balearicum	1	1	1.0	0.5	1	0	1	96.933
24. Ophidion holbrooki	1	1	1.0	0.5	1	0	1	97.546
25. Ogcocephalus pantostictus	1	1	1.0	0.5	1	0	1	98.160
26. Lepophidium spp.	1	1	1.0	0.5	1	0	1	98.773
27. Eucinostomus argenteus	1	1	1.0	0.5	1	0	1	99.387
28. Syngnathus louisianae	1	1	1.0	0.5	1	0	1	100.000

TOTAL # OBSERVATIONS = 2
TOTAL # OCCURRENCES = 38
TOTAL COUNT = 163
CUM% BASED ON TOTAL

DEMERSAL FISHES OCCURENCE BY CRUISE, TRANSECT, AND STATION

CRU=87-B2 TRAN=M STA=2

PARAMETERS

VARIABLE	#OCC	TOTAL	#/OCC	MEAN	MAX	MIN	MIN>0	CUM%
1. Stenotomus caprinus	2	74	37.0	37.0	40	34	34	22.561
2. Bellator militaris	2	61	30.5	30.5	37	24	24	41.159
3. Scorpaena calcarata	2	28	14.0	14.0	18	10	10	49.695
4. Syacium papillosum	2	27	13.5	13.5	18	9	9	57.927
5. Halieutichthys aculeatus	2	26	13.0	13.0	23	3	3	65.854
6. Prionotus longispinosus	2	14	7.0	7.0	8	6	6	70.122
7. Lepophidium jeannae	2	12	6.0	6.0	10	2	2	73.780
8. Etropus microstomus	2	12	6.0	6.0	9	3	3	77.439
9. Symphurus parvus	2	10	5.0	5.0	9	1	1	80.488
10. Synodus foetens	2	5	2.5	2.5	3	2	2	82.012
11. Brotula barbata	2	4	2.0	2.0	3	1	1	83.232
12. Prionotus roseus	2	4	2.0	2.0	3	1	1	84.451
13. Engyophrys senta	2	3	1.5	1.5	2	1	1	85.366
14. Sphoeroides parvus	2	2	1.0	1.0	1	1	1	85.976
15. Saurida brasiliensis	2	2	1.0	1.0	1	1	1	86.585
16. Antennarius radiosus	2	2	1.0	1.0	1	1	1	87.195
17. Porichthys plectrodon	2	2	1.0	1.0	1	1	1	87.805
18. Prionotus ophryas	2	2	1.0	1.0	1	1	1	88.415
19. Centropristis philadelphica	1	6	6.0	3.0	6	0	6	90.244
20. Syacium sp.	1	5	5.0	2.5	5	0	5	91.768
21. Etropus rimosus	1	5	5.0	2.5	5	0	5	93.293
22. Hoplunnis tenuis	1	3	3.0	1.5	3	0	3	94.207
23. Serranus spp.	1	3	3.0	1.5	3	0	3	95.122
24. Bregmaceros atlanticus	1	2	2.0	1.0	2	0	2	95.732
25. Symphurus diomedianus	1	2	2.0	1.0	2	0	2	96.341
26. Ogcocephalus parvus	1	2	2.0	1.0	2	0	2	96.951
27. Prionotus alatus	1	1	1.0	0.5	1	0	1	97.256
28. Serranus atrobranchus	1	1	1.0	0.5	1	0	1	97.561
29. Prionotus stearnsi	1	1	1.0	0.5	1	0	1	97.866
30. Urophycis cirrata	1	1	1.0	0.5	1	0	1	98.171
31. Ogcocephalus pantostictus	1	1	1.0	0.5	1	0	1	98.476
32. Cyclopsetta chittendeni	1	1	1.0	0.5	1	0	1	98.780
33. Hippocampus erectus	1	1	1.0	0.5	1	0	1	99.085
34. Neobythites gilli	1	1	1.0	0.5	1	0	1	99.390
35. Citharichthys arctifrons	1	1	1.0	0.5	1	0	1	99.695
36. Equetus Spp	1	1	1.0	0.5	1	0	1	100.000

TOTAL # OBSERVATIONS = 2
TOTAL # OCCURRENCES = 54
TOTAL COUNT = 328
CUM% BASED ON TOTAL

DEMERSAL FISHES OCCURENCE BY CRUISE, TRANSECT, AND STATION

CRU=87-B2 TRAN=M STA=3

PARAMETERS

VARIABLE	#OCC	TOTAL	#/OCC	MEAN	MAX	MIN	MIN>0	CUM%
1. Halieutichthys aculeatus	2	47	23.5	23.5	45	2	2	20.614
2. Prionotus alatus	2	17	8.5	8.5	15	2	2	28.070
3. Symphurus civitatus	2	13	6.5	6.5	7	6	6	33.772
4. Porichthys plectrodon	2	11	5.5	5.5	6	5	5	38.596
5. Serranus atrobranchus	2	10	5.0	5.0	8	2	2	42.982
6. Hoplunnis tenuis	2	9	4.5	4.5	5	4	4	46.930
7. Urophycis cirrata	2	9	4.5	4.5	5	4	4	50.877
8. Symphurus diomedianus	2	8	4.0	4.0	5	3	3	54.386
9. Stenotomus caprinus	2	8	4.0	4.0	7	1	1	57.895
10. Pontinus longispinis	2	8	4.0	4.0	7	1	1	61.404
11. Lepophidium jeannae	2	8	4.0	4.0	6	2	2	64.912
12. Prionotus rubio	2	8	4.0	4.0	7	1	1	68.421
13. Micropogonias undulatus	2	7	3.5	3.5	6	1	1	71.491
14. Trichopsetta ventralis	2	7	3.5	3.5	4	3	3	74.561
15. Physiculus fulvus	2	6	3.0	3.0	3	3	3	77.193
16. Gymnachirus texae	2	5	2.5	2.5	4	1	1	79.386
17. Bembrops anatirostris	2	5	2.5	2.5	4	1	1	81.579
18. Centropristis philadelphica	2	3	1.5	1.5	2	1	1	82.895
19. Urophycis floridana	2	2	1.0	1.0	1	1	1	83.772
20. Hildebrandia flava	2	2	1.0	1.0	1	1	1	84.649
21. Citharichthys cornutus	1	6	6.0	3.0	6	0	6	87.281
22. Neobythites gilli	1	4	4.0	2.0	4	0	4	89.035
23. Dactylopterus volitans	1	4	4.0	2.0	4	0	4	90.789
24. Coelorhynchus caribbaeus	1	3	3.0	1.5	3	0	3	92.105
25. Paralichthys squamilentus	1	3	3.0	1.5	3	0	3	93.421
26. Hoplunnis macrurus	1	2	2.0	1.0	2	0	2	94.298
27. Monolene sessilcauda	1	2	2.0	1.0	2	0	2	95.175
28. Ogcocephalus declivirostris	1	1	1.0	0.5	1	0	1	95.614
29. Kathetostoma albigutta	1	1	1.0	0.5	1	0	1	96.053
30. Antennarius radiosus	1	1	1.0	0.5	1	0	1	96.491
31. Pristipomoides aquilonaris	1	1	1.0	0.5	1	0	1	96.930
32. Peristedion gracile	1	1	1.0	0.5	1	0	1	97.368
33. Hildebrandia gracilior	1	1	1.0	0.5	1	0	1	97.807
34. Ogcocepholus corniger	1	1	1.0	0.5	1	0	1	98.246
35. Ogcocephalus nasutus	1	1	1.0	0.5	1	0	1	98.684
36. Ogcocephalus parvus	1	1	1.0	0.5	1	0	1	99.123
37. Conodon nobilis	1	1	1.0	0.5	1	0	1	99.561
38. Leiostomus xanthurus	1	1	1.0	0.5	1	0	1	100.000

TOTAL # OBSERVATIONS = 2
TOTAL # OCCURRENCES = 58
TOTAL COUNT = 228
CUM% BASED ON TOTAL

DEMERSAL FISHES OCCURENCE BY CRUISE, TRANSECT, AND STATION

CRU=87-B2 TRAN=M STA=4

	PARAMETERS							
VARIABLE	#OCC	TOTAL	#/OCC	MEAN	MAX	MIN	MIN>0	CUM%
1. Pontinus longispinis	2	63	31.5	31.5	49	14	14	19.688
2. Symphurus civitatus	2	28	14.0	14.0	27	1	1	28.438
3. Bembrops anatirostris	2	27	13.5	13.5	25	2	2	36.875
4. Monolene sessilcauda	2	21	10.5	10.5	14	7	7	43.438
5. Urophycis cirrata	2	16	8.0	8.0	14	2	2	48.438
6. Bathygadus melaobranchus	2	16	8.0	8.0	12	4	4	53.438
7. Pikea mexicana	2	15	7.5	7.5	9	6	6	58.125
8. Coelorhynchus caribbaeus	2	14	7.0	7.0	11	3	3	62.500
9. Trichopsetta ventralis	2	14	7.0	7.0	9	5	5	66.875
10. Ogcocephalus declivirostris	2	13	6.5	6.5	12	1	1	70.938
11. Lepophidium brevibarbe	2	11	5.5	5.5	8	3	3	74.375
12. Hoplunnis macrurus	2	9	4.5	4.5	8	1	1	77.188
13. Neobythites gilli	2	8	4.0	4.0	7	1	1	79.688
14. Porichthys plectrodon	2	5	2.5	2.5	4	1	1	81.250
15. Antennarius radiosus	2	5	2.5	2.5	3	2	2	82.813
16. Hildebrandia flava	2	5	2.5	2.5	4	1	1	84.375
17. Gobiosoma sp.	2	4	2.0	2.0	3	1	1	85.625
18. Prionotus rubio	2	3	1.5	1.5	2	1	1	86.563
19. Paralichthys squamilentus	2	2	1.0	1.0	1	1	1	87.188
20. Physiculus fulvus	1	12	12.0	6.0	12	0	12	90.938
21. Ogcocepholus corniger	1	6	6.0	3.0	6	0	6	92.813
22. Paraxenomystax sp.	1	5	5.0	2.5	5	0	5	94.375
23. Hemanthias vivanus	1	4	4.0	2.0	4	0	4	95.625
24. Halieutichthys aculeatus	1	3	3.0	1.5	3	0	3	96.563
25. Scorpaena brasiliensis	1	2	2.0	1.0	2	0	2	97.188
26. Gnathophis bathytopas	1	2	2.0	1.0	2	0	2	97.813
27. Serranus atrobranchus	1	1	1.0	0.5	1	0	1	98.125
28. Macrorhamphosus scolopax	1	1	1.0	0.5	1	0	1	98.438
29. Gymnachirus texae	1	1	1.0	0.5	1	0	1	98.750
30. Urophycis floridana	1	1	1.0	0.5	1	0	1	99.063
31. Raja olseni	1	1	1.0	0.5	1	0	1	99.375
32. Brotula barbata	1	1	1.0	0.5	1	0	1	99.688
33. Trichiurus lepturus	1	1	1.0	0.5	1	0	1	100.000

TOTAL # OBSERVATIONS = 2
TOTAL # OCCURRENCES = 52
TOTAL COUNT = 320
CUM% BASED ON TOTAL

SORT BASED ON #OCC AND TOTAL

Appendix C

PHYSICAL OCEANOGRAPHY/ WATER COLUMN CHARACTERIZATION

100

CTD DATA

CTD Station Locations, Plots and Listings for Cruises B3 and B4

The following pages show the cruise tracks and locations at which CTD/Transmissometry profiles were collected for Cruises B3 and B4, as well as graphical plots and tables of the data from each station. The CTD is a Sea-Bird Electronics, Inc., Model SBE-19 (SEACAT) Conductivity, Temperature Depth Recorder, which is customized to interface with a Sea Tech, Inc., 25 cm transmissometer. The Year 1 Report (Brooks et al., 1989) gives the specifications of the SEACAT and the transmissometer.

Continuous CTD/Transmissivity profiles are made during the downcast. The instrument is lowered at a rate of about 0.5 to 1.0 m/sec and samples twice per second. The response times of the conductivity and temperature sensors are unequal and are functions of the flow speed through the sensors. The mismatch in response times (a problem with all CTDs) results in spikes in the vertical profile of salinity, which is computed from the values of temperature and conductivity. To alleviate this problem, three operations are performed on the CTD data. First, a vertical shift or offset is introduced between the temperature and conductivity profiles to minimize the mismatch in response times. Next, observations during which the descent velocity falls below a selected value are discarded. Finally, the data are averaged over depth bins of 2 meters. Bottle samples are obtained by a General Oceanics Rosette Sampler during the upcast. The accuracy of the CTD is checked by linear regression with data obtained from botle samples and reversing thermometers. Section 10.3.3 of this report describes the procedures in detail. The results are as follows:

Cruise B3

$T_{CORR}=0.9997241 \times T_{CTD} + 0.14374633$; $R^2=0.99975$; Std. Err.=0.107

$S_{CORR}=0.9913992 \times S_{CTD} - 0.11739102$; $R^2=0.99898$; Std. Err.=0.079

Cruise B4

$T_{CORR}=1.0004626 \times T_{CTD} - 0.0008754$; $R^2=0.99995$; Std. Err.=0.017

$S_{CORR}=1.0289184 \times S_{CTD} - 0.9949284$; $R^2=0.99988$; Std. Err.=0.015

The errors for Cruise B3 are relatively large because of a problem that was traced to the armored conducting cable used to lower the CTD. The cable was damaged and "leaked" electrical signals that were picked up by the CTD's sensors, particularly the conductivity sensor. This effect created numerous, small spurious spikes in the data. As a result, the CTD's salinity data are unusable at stations C2, C3, C4 and S4. However, the salinity values from bottle samples are included on the plots for these stations, where available.

DEPTH (m)	TEMPERATURE (°C)	SALINITY (0/00)	DENSITY (SIGMA-T)	LIGHT TRANSMISSION (VOLTS# 0)
CRUISE 3				
STATION C-1				
2.0	29.7098	32.5323	20.2779	3.727
4.0	29.4378	33.2275	20.8950	4.018
5.0	29.1986	33.3546	21.0712	4.202
6.0	28.9369	33.6078	21.3501	4.265
7.0	28.6517	33.8713	21.6442	4.279
8.0	28.5275	33.9052	21.7110	4.265
9.0	28.5003	33.8815	21.7019	4.257
10.0	28.4715	33.8993	21.7249	4.239
11.0	28.4548	33.9124	21.7403	4.141
12.0	28.4832	34.0653	21.8468	4.131
13.0	28.4688	34.1094	21.8850	4.055
14.0	28.4133	34.0897	21.8884	3.975
15.0	28.3659	33.9788	21.8199	3.855
16.0	28.3195	34.0216	21.8676	3.829
17.0	28.1809	34.1727	22.0276	4.145
18.0	28.0239	34.1561	22.0663	4.255

CRUISE 3
STATION C-2

DEPTH (m)	TEMPERATURE (°C)	SALINITY (0/00)	DENSITY (SIGMA-T)	LIGHT TRANSMISSION (VOLTS# 0)
2.0	29.6765	30.7618	18.9593	4.287
4.0	29.0481	33.0006	20.8535	4.323
6.0	28.6331	33.8052	21.6003	4.322
8.0	28.2368	34.1295	21.9765	4.354
10.0	28.2687	34.3462	22.1304	4.404
12.0	27.9451	34.4628	22.3247	4.432
14.0	27.2448	34.6229	22.6728	4.424
16.0	26.2834	34.8701	23.1662	4.424
18.0	25.3926	35.0345	23.5682	4.409
20.0	24.6095	35.3462	24.0446	4.408
22.0	23.5347	35.8692	24.7648	4.428
24.0	22.7556	36.1546	25.2099	4.447
26.0	21.8592	36.3121	25.5859	4.445
28.0	21.5908	36.4199	25.7441	4.424
30.0	21.6699	36.4836	25.7709	4.468
32.0	21.6160	36.5727	25.8543	4.500
34.0	21.4939	36.6875	25.9766	4.521
36.0	21.1714	36.7055	26.0800	4.516
38.0	20.8286	36.6527	26.1337	4.531
40.0	20.7595	36.6804	26.1738	4.542
42.0	20.6946	36.5388	26.0827	4.532
44.0	20.5297	36.6666	26.2258	4.544
46.0	20.3902	36.5950	26.2085	4.544
48.0	20.2846	36.6820	26.3038	4.496

DEPTH (m)	TEMPERATURE (°C)	SALINITY (0/00)	DENSITY (SIGMA-T)	LIGHT TRANSMISSION (VOLTS# 0)
CRUISE 3				
STATION C-3				
2.0	29.4973	30.6506	18.9312	1.433
4.0	29.2039	31.2007	19.4409	4.013
6.0	28.7247	32.1579	20.3230	4.377
8.0	27.6030	33.4155	21.6411	4.405
10.0	26.6340	34.1914	22.5398	4.428
12.0	26.0979	34.7847	23.1593	4.426
14.0	24.7718	35.4688	24.0888	4.414
16.0	23.4636	35.8180	24.7464	4.394
18.0	23.2097	36.0445	24.9938	4.406
20.0	22.5087	36.2757	25.3735	4.417
22.0	22.3589	36.2809	25.4205	4.459
24.0	22.2735	36.1734	25.3624	4.491
26.0	21.9065	36.1730	25.4660	4.499
28.0	21.5743	36.3572	25.7005	4.494
30.0	21.3137	36.3886	25.7971	4.472
32.0	21.1388	36.2644	25.7500	4.458
34.0	20.8814	36.3968	25.9225	4.434
36.0	20.8420	36.3542	25.9005	4.414
38.0	20.6682	36.3786	25.9666	4.419
40.0	20.2879	36.6725	26.2957	4.464
42.0	20.1423	36.5103	26.2099	4.503
44.0	20.0342	36.5846	26.2959	4.505
46.0	19.8630	36.5150	26.2879	4.526
48.0	19.7324	36.4808	26.2961	4.538
50.0	19.7007	36.3926	26.2365	4.541
52.0	19.5769	36.5530	26.3928	4.541
54.0	19.5615	36.5594	26.4018	4.548
56.0	19.5262	36.5219	26.3822	4.548
58.0	19.4248	36.5620	26.4396	4.547
60.0	19.2523	36.5769	26.4962	4.550
62.0	19.1804	36.5840	26.5203	4.551
64.0	19.0309	36.5423	26.5269	4.553
66.0	18.8785	36.5773	26.5932	4.554
68.0	18.7931	36.5261	26.5757	4.554
70.0	18.6845	36.5682	26.6360	4.555
72.0	18.5885	36.5229	26.6255	4.556
74.0	18.4308	36.5304	26.6713	4.557
76.0	18.2894	36.5039	26.6866	4.556
78.0	18.1623	36.4910	26.7086	4.558
80.0	18.0562	36.4940	26.7375	4.554
82.0	17.9243	36.5039	26.7781	4.527
84.0	17.7752	36.4556	26.7777	4.442
86.0	17.6292	36.4857	26.8370	4.318

DEPTH (m)	TEMPERATURE (°C)	SALINITY (0/00)	DENSITY (SIGMA-T)	LIGHT TRANSMISSION (VOLTS# 0)
88.0	17.5411	36.4402	26.8235	4.347
90.0	17.4532	36.4254	26.8336	4.333
92.0	17.3594	36.4208	26.8530	4.222
94.0	17.3366	36.4237	26.8607	4.225
96.0	17.3013	36.5051	26.9324	4.417
98.0	17.1352	36.4071	26.8968	4.511
100.0	17.0315	36.4255	26.9361	4.441
102.0	16.9430	36.4732	26.9944	4.352
104.0	16.8532	36.4374	26.9882	4.424
106.0	16.7550	36.3134	26.9155	4.380
108.0	16.4707	36.3954	27.0467	4.327
110.0	16.2241	36.2365	26.9813	4.021
112.0	16.2398	36.2826	27.0133	4.005
114.0	16.2252	36.2194	26.9677	4.022
116.0	16.1585	36.2531	27.0094	3.868
118.0	16.1449	36.2360	26.9993	2.599

CRUISE 3
STATION C-4

DEPTH (m)	TEMPERATURE (°C)	SALINITY (0/00)	DENSITY (SIGMA-T)	LIGHT TRANSMISSION (VOLTS# 0)
6.000	29.1648	31.0456	19.2988	4.140
8.000	28.9194	31.8978	20.0620	4.389
10.000	28.7716	32.0924	20.2580	4.457
12.000	28.1845	32.6915	20.9040	4.458
14.000	26.7026	33.7756	22.2001	4.410
16.000	25.4554	34.5172	23.1552	4.370
18.000	25.1252	35.1718	23.7548	4.411
20.000	24.5399	35.6891	24.3271	4.431
22.000	23.6004	35.8384	24.7216	4.446
24.000	22.8498	35.9488	25.0259	4.469
26.000	22.1369	35.8166	25.1280	4.401
28.000	21.9070	35.9733	25.3126	4.406
30.000	21.7465	36.1528	25.4954	4.354
32.000	21.5811	36.2317	25.6022	4.365
34.000	21.3371	36.2817	25.7085	4.388
35.074	21.2223	36.1335	25.6264	4.425
38.000	20.6204	36.3563	25.9624	4.480
40.000	20.4280	36.3173	25.9845	4.478
42.000	20.1105	36.4753	26.1914	4.487
44.000	19.9403	36.3119	26.1110	4.497
46.000	19.8773	36.2985	26.1173	4.481
48.000	19.7443	36.2899	26.1459	4.487
50.000	19.5530	36.3070	26.2095	4.536
52.000	19.3756	36.4925	26.3989	4.545
54.000	19.2875	36.5788	26.4884	4.547
56.000	19.3167	36.3537	26.3073	4.545
58.000	19.3444	36.3244	26.2774	4.553
60.000	19.2994	36.5076	26.4305	4.562
62.000	19.2353	36.6535	26.5597	4.559
66.000	19.0572	36.4937	26.4826	4.565
68.000	18.8060	36.3686	26.4507	4.564
70.000	18.7212	36.3682	26.4721	4.565
71.072	18.6403	36.3631	26.4888	4.569
74.000	18.5993	36.5390	26.6351	4.567
76.000	18.6661	36.2534	26.3975	4.565
78.000	18.4813	36.4367	26.5860	4.567
80.000	18.3373	36.6543	26.7907	4.553
82.000	18.2712	36.5232	26.7061	4.535
84.000	18.2695	36.3464	26.5698	4.560
86.000	18.2043	36.4779	26.6879	4.562
88.000	18.1691	36.4050	26.6403	4.547
90.000	18.0673	36.6529	26.8576	4.570
94.000	17.9561	36.4509	26.7291	4.548

DEPTH (m)	TEMPERATURE (°C)	SALINITY (0/00)	DENSITY (SIGMA-T)	LIGHT TRANSMISSION (VOLTS# 0)
96.000	17.8909	36.7373	26.9669	4.533
98.000	17.8586	36.5467	26.8275	4.511
100.000	17.8307	36.5405	26.8296	4.506
102.000	17.8402	36.4085	26.7251	4.510
106.000	17.8399	36.3519	26.6814	4.516
108.000	17.8470	36.3445	26.6739	4.539
110.000	17.7362	36.4235	26.7625	4.564
114.000	17.4212	36.4242	26.8405	4.527
118.000	17.0762	36.3796	26.8898	4.315
120.000	17.0590	36.5576	27.0319	4.381
122.000	17.0340	36.3539	26.8800	4.569
124.000	16.9160	36.3872	26.9343	4.541
126.000	16.7569	36.4383	27.0119	4.488
128.000	16.5890	36.3179	26.9584	4.472
130.000	16.4986	36.3520	27.0064	4.475
132.000	16.4407	36.3088	26.9865	4.483
134.000	16.2720	36.3529	27.0604	4.503
138.000	16.0229	36.3044	27.0808	4.451
140.000	15.9669	36.2540	27.0546	4.427
142.000	15.9409	36.3139	27.1071	4.371
144.000	15.9234	36.1620	26.9932	4.341
146.000	15.8953	36.3253	27.1266	4.342
148.000	15.8907	36.1738	27.0099	4.339
152.000	15.7505	36.2135	27.0730	4.308
156.000	15.6317	36.3131	27.1776	4.291
158.000	15.4984	36.1975	27.1181	4.285
160.000	15.4327	36.1911	27.1281	4.313
164.000	15.2473	36.0909	27.0919	4.433
166.000	15.1681	36.1470	27.1534	4.473
167.036	15.1446	36.0867	27.1117	4.471
172.000	14.9488	36.4290	27.4218	4.390
174.000	14.9396	36.0631	27.1390	4.417
176.000	14.8311	36.0746	27.1720	4.403
178.000	14.7914	36.1563	27.2444	4.380
180.000	14.7141	36.0287	27.1621	4.373
182.000	14.7283	36.0510	27.1763	4.380
184.000	14.7045	36.1152	27.2315	4.383
185.025	14.6953	36.1570	27.2661	4.386
188.000	14.5746	35.9940	27.1655	4.376
190.000	14.4356	36.1517	27.3187	4.367
192.000	14.3004	36.0526	27.2708	4.375
194.000	14.1145	35.8823	27.1779	4.406
196.000	13.9487	35.8825	27.2134	4.428
198.000	13.8076	35.8777	27.2396	4.437
200.000	13.6325	35.8883	27.2847	4.466
202.000	13.5392	35.8556	27.2786	4.470

DEPTH (m)	TEMPERATURE (°C)	SALINITY (0/00)	DENSITY (SIGMA-T)	LIGHT TRANSMISSION (VOLTS# 0)
204.000	13.4725	35.8709	27.3044	4.469
206.000	13.2792	35.8032	27.2915	4.432
208.000	13.2194	35.7982	27.3000	4.370
210.000	13.1856	35.8772	27.3687	4.371
212.000	13.1808	35.7778	27.2919	4.365
214.000	13.1672	35.7622	27.2826	4.371
216.000	13.1619	35.7612	27.2829	4.367
218.000	13.1544	35.7404	27.2681	4.378
220.000	13.1284	35.7938	27.3151	4.389
222.000	13.0914	35.8047	27.3312	4.393
224.000	13.0582	35.7358	27.2841	4.408
226.000	13.0005	35.7733	27.3252	4.414
228.000	12.9234	35.7702	27.3384	4.413
230.000	12.8770	35.7885	27.3622	4.414
232.000	12.7446	35.7951	27.3940	4.408
234.000	12.5611	35.7690	27.4102	4.396
236.000	12.5082	35.7482	27.4044	4.394
238.000	12.4640	35.7051	27.3796	4.394
240.000	12.4313	35.6894	27.3736	4.393
242.000	12.3592	35.6936	27.3912	4.409
244.000	12.3113	35.5449	27.2842	4.406
246.000	12.1844	35.6705	27.4074	4.398
248.000	12.0907	35.5560	27.3359	4.405
250.000	11.9581	35.5034	27.3203	4.413
252.000	11.8542	35.5362	27.3660	4.426
254.000	11.7305	35.4972	27.3591	4.436
256.000	11.6787	35.4514	27.3330	4.434
258.000	11.6302	35.4878	27.3707	4.427
260.000	11.6302	35.4410	27.3340	4.418
262.000	11.6168	35.4625	27.3535	4.407
264.000	11.5912	35.4863	27.3770	4.408
266.000	11.5187	35.3753	27.3035	4.394
268.000	11.2011	35.4306	27.4062	4.359
270.000	10.8915	35.3298	27.3837	4.296
272.000	10.5562	35.4171	27.5130	4.264
274.000	10.2693	35.2948	27.4675	4.252

DEPTH (m)	TEMPERATURE (°C)	SALINITY (0/00)	DENSITY (SIGMA-T)	LIGHT TRANSMISSION (VOLTS# 0)
CRUISE 3				
STATION M-1				
4.0	28.9071	32.3674	20.4209	3.400
6.0	28.8639	32.9516	20.8776	4.064
8.0	28.8375	33.9332	21.6295	4.200
10.0	28.7842	34.2678	21.9006	4.282
12.0	28.6260	34.3600	22.0229	4.313
14.0	28.2212	34.5116	22.2712	4.359
16.0	27.8385	34.5357	22.4147	4.337
18.0	27.2306	34.9006	22.8883	4.259

DEPTH (m)	TEMPERATURE (°C)	SALINITY (0/00)	DENSITY (SIGMA-T)	LIGHT TRANSMISSION (VOLTS# 0)
CRUISE 3				
STATION M-2B				
6.0	28.3224	33.9126	21.7839	1.324
8.0	28.3059	34.1431	21.9641	1.298
10.0	28.3040	34.2604	22.0537	1.322
12.0	27.8017	34.4305	22.3468	1.337
14.0	27.2385	34.5442	22.6150	1.321
16.0	26.8002	34.8024	22.9513	1.316
18.0	26.5565	35.1438	23.2882	1.310
20.0	25.9555	35.6040	23.8275	1.321
22.0	25.4713	36.0932	24.3509	1.306
24.0	25.1710	36.3255	24.6206	1.342
26.0	24.9379	36.3600	24.7184	1.326
28.0	24.4540	36.5105	24.9807	1.326
30.0	23.8892	36.5727	25.1977	1.339
32.0	23.4906	36.5753	25.3176	1.348
34.0	23.2422	36.4375	25.2851	1.325
36.0	22.9179	36.4613	25.3979	1.340
38.0	22.6611	36.3997	25.4249	1.352
40.0	22.4099	36.5246	25.5928	1.352
42.0	22.2803	36.5106	25.6190	1.341
44.0	21.9668	36.5447	25.7341	1.359
46.0	21.7322	36.4432	25.7224	1.350
48.0	21.7033	36.5128	25.7839	1.345
50.0	21.4124	36.5431	25.8884	1.347
52.0	21.0513	36.4092	25.8855	1.337
54.0	20.7151	36.4894	26.0390	1.342
56.0	20.5001	36.5361	26.1334	1.344

DEPTH (m)	TEMPERATURE (°C)	SALINITY (0/00)	DENSITY (SIGMA-T)	LIGHT TRANSMISSION (VOLTS# 0)
CRUISE 3				
STATION M-3				
4.0	29.1810	32.5338	20.4570	4.494
6.0	29.2114	32.9233	20.7406	4.496
8.0	28.9689	33.4657	21.2319	4.499
10.0	28.9002	33.5670	21.3314	4.514
12.0	28.8874	33.4756	21.2664	4.519
14.0	28.8613	33.6010	21.3701	4.515
16.0	28.8411	33.6131	21.3859	4.514
18.0	28.7377	33.9010	21.6382	4.509
20.0	28.2830	34.3576	22.1342	4.490
22.0	27.1895	34.5755	22.6550	4.446
24.0	26.8788	34.6310	22.7960	4.399
26.0	26.7395	35.6227	23.5944	4.432
28.0	24.9541	35.7085	24.2162	4.453
30.0	23.7806	36.0699	24.8449	4.446
32.0	23.8954	36.3608	25.0337	4.461
34.0	23.8055	36.6078	25.2493	4.480
36.0	23.4476	36.4094	25.2034	4.506
38.0	23.0651	36.5514	25.4240	4.523
40.0	22.8511	36.5318	25.4713	4.532
42.0	22.6212	36.4196	25.4517	4.535
44.0	22.3507	36.5125	25.6004	4.539
46.0	22.2607	36.5201	25.6319	4.540
48.0	22.1638	36.5812	25.7064	4.540
50.0	21.9407	36.6043	25.7873	4.541
52.0	21.6851	36.4515	25.7419	4.538
54.0	21.5092	36.5265	25.8487	4.532
56.0	21.2137	36.6120	25.9964	4.537
58.0	20.8859	36.5738	26.0574	4.527
60.0	20.6271	36.5199	26.0864	4.513
62.0	20.4005	36.4772	26.1150	4.491
64.0	20.2475	36.4390	26.1268	4.460
66.0	20.1737	36.5648	26.2434	4.480
68.0	20.0606	36.5746	26.2812	4.516
70.0	19.9563	36.5006	26.2520	4.527
72.0	19.8289	36.4840	26.2731	4.535
74.0	19.6821	36.4282	26.2688	4.544
76.0	19.6510	36.4695	26.3089	4.552
78.0	19.5881	36.5188	26.3634	4.553
80.0	19.4632	36.4755	26.3629	4.548
82.0	19.2941	36.4964	26.4232	4.556
84.0	19.2002	36.5121	26.4598	4.558
86.0	19.1202	36.5446	26.5056	4.556
88.0	18.9351	36.5657	26.5697	4.556

DEPTH (m)	TEMPERATURE (°C)	SALINITY (0/00)	DENSITY (SIGMA-T)	LIGHT TRANSMISSION (VOLTS# 0)
90.0	18.8480	36.5020	26.5429	4.555
92.0	18.7984	36.4865	26.5436	4.557
94.0	18.6739	36.5472	26.6224	4.558
96.0	18.5402	36.5553	26.6627	4.556
98.0	18.4752	36.4831	26.6234	4.557
100.0	18.3774	36.4978	26.6596	4.562
102.0	18.2015	36.5021	26.7073	4.556
104.0	18.0557	36.4518	26.7049	4.563
106.0	17.8601	36.4990	26.7902	4.536
108.0	17.8291	36.3832	26.7083	4.488
110.0	17.7138	36.4191	26.7646	4.426
112.0	17.4751	36.4105	26.8167	4.216
114.0	17.2555	36.4070	26.8675	4.051
116.0	17.1523	36.4091	26.8942	3.729
118.0	17.1267	36.3700	26.8701	3.508

DEPTH (m)	TEMPERATURE (°C)	SALINITY (0/00)	DENSITY (SIGMA-T)	LIGHT TRANSMISSION (VOLTS# 0)

CRUISE 3
STATION M-4

DEPTH (m)	TEMPERATURE (°C)	SALINITY (0/00)	DENSITY (SIGMA-T)	LIGHT TRANSMISSION (VOLTS# 0)
4.0	29.1474	32.9532	20.7857	4.505
6.0	29.2600	33.0882	20.8492	4.505
8.0	29.2863	33.3149	21.0119	4.513
10.0	29.1242	33.3920	21.1244	4.516
12.0	28.9391	33.6004	21.3438	4.521
14.0	28.8184	33.5917	21.3772	4.528
16.0	28.7454	33.6679	21.4592	4.526
18.0	28.6117	34.0000	21.7549	4.514
20.0	28.2499	34.0878	21.9406	4.470
22.0	27.3538	34.3030	22.3949	4.422
24.0	26.9568	34.8207	22.9153	4.431
26.0	26.9951	35.8439	23.6809	4.460
28.0	24.9509	35.9597	24.4084	4.442
30.0	23.6771	36.0993	24.8985	4.432
32.0	23.8539	36.3583	25.0441	4.475
34.0	23.8228	36.5054	25.1658	4.477
36.0	23.6074	36.4565	25.1923	4.471
38.0	23.2812	36.5204	25.3371	4.493
40.0	22.9123	36.5771	25.4882	4.537
42.0	22.6277	36.6529	25.6286	4.538
44.0	22.3172	36.5451	25.6349	4.522
46.0	22.1077	36.5793	25.7208	4.543
48.0	21.9055	36.5358	25.7447	4.542
50.0	21.7883	36.5363	25.7781	4.547
52.0	21.6033	36.5461	25.8375	4.544
54.0	21.1009	36.6748	26.0760	4.536
56.0	20.8381	36.5785	26.0740	4.533
58.0	20.6886	36.6057	26.1358	4.532
60.0	20.5259	36.6612	26.2227	4.551
62.0	20.3854	36.5241	26.1552	4.557
64.0	20.2890	36.5838	26.2271	4.556
66.0	20.1860	36.6072	26.2728	4.556
68.0	20.1177	36.4955	26.2050	4.554
70.0	19.9773	36.6113	26.3317	4.552
72.0	19.9256	36.6991	26.4131	4.555
74.0	19.8221	36.5515	26.3269	4.561
76.0	19.7547	36.5402	26.3360	4.556
78.0	19.5764	36.5280	26.3736	4.558
80.0	19.4649	36.5407	26.4127	4.558
82.0	19.3538	36.5615	26.4578	4.557
84.0	19.2893	36.4977	26.4254	4.561
86.0	19.0716	36.6853	26.6267	4.563
88.0	18.9740	36.6235	26.6042	4.560

DEPTH (m)	TEMPERATURE (°C)	SALINITY (0/00)	DENSITY (SIGMA-T)	LIGHT TRANSMISSION (VOLTS# 0)
90.0	18.8291	36.5093	26.5535	4.561
92.0	18.6954	36.5629	26.6290	4.562
94.0	18.6352	36.5341	26.6222	4.563
96.0	18.5780	36.5423	26.6431	4.549
98.0	18.3407	36.6135	26.7582	4.416
100.0	18.1512	36.4949	26.7143	4.321
102.0	17.9876	36.4803	26.7440	4.294
104.0	17.6346	36.5039	26.8498	4.354
106.0	17.2180	36.5250	26.9682	4.365
108.0	17.0594	36.4115	26.9186	4.402
110.0	17.0342	36.4329	26.9412	4.425
112.0	16.9206	36.3849	26.9313	4.441
114.0	16.8844	36.3520	26.9145	4.436
116.0	16.8685	36.3607	26.9251	4.422
118.0	16.7446	36.4597	27.0315	4.299
120.0	16.6926	36.3384	26.9498	4.239
122.0	16.6454	36.3525	26.9720	4.332
124.0	16.5570	36.4142	27.0408	4.415
126.0	16.5169	36.1683	26.8595	4.364
128.0	16.4492	36.3113	26.9864	4.269
130.0	16.4136	36.2900	26.9782	4.230
132.0	16.3888	36.2681	26.9671	4.216
134.0	16.3215	36.3983	27.0840	4.228
136.0	16.2617	36.2617	26.9920	4.204
138.0	16.0946	36.2565	27.0269	4.169
140.0	15.9222	36.3108	27.1091	4.134
142.0	15.8617	36.2427	27.0701	4.237
144.0	15.7526	36.3164	27.1525	4.283
146.0	15.6707	36.2737	27.1381	4.323
148.0	15.6279	36.2160	27.1030	4.371
150.0	15.4812	36.2562	27.1677	4.364
152.0	15.2596	36.2748	27.2323	4.300
154.0	15.2368	36.2740	27.2368	4.236
156.0	15.2074	36.2314	27.2102	4.281
158.0	15.0650	36.1223	27.1572	4.143
160.0	14.9669	36.1608	27.2090	4.017
162.0	14.8154	36.1737	27.2526	3.941
164.0	14.6086	36.0772	27.2230	3.925
166.0	14.4918	35.9777	27.1708	3.897

DEPTH (m)	TEMPERATURE (°C)	SALINITY (0/00)	DENSITY (SIGMA-T)	LIGHT TRANSMISSION (VOLTS# 0)
CRUISE 3				
STATION D-1				
4.0	28.6613	32.9523	20.9452	4.322
6.0	28.6602	33.6370	21.4640	4.351
8.0	28.5255	34.1513	21.8980	4.407
10.0	28.4518	34.1494	21.9210	4.433
12.0	28.3059	34.3658	22.1329	4.439
14.0	28.2229	34.5809	22.3233	4.446
16.0	28.0020	35.1369	22.8175	4.454

CRUISE 3
STATION D-2

DEPTH (m)	TEMPERATURE (°C)	SALINITY (0/00)	DENSITY (SIGMA-T)	LIGHT TRANSMISSION (VOLTS# 0)
4.0	27.9706	34.1628	22.0880	4.436
6.0	27.8787	34.4614	22.3452	4.448
8.0	27.8055	34.6321	22.4986	4.457
10.0	27.5426	34.6032	22.5619	4.457
12.0	26.9037	34.8423	22.9485	4.432
14.0	26.3277	35.2975	23.4774	4.429
16.0	26.0664	35.7709	23.9199	4.444
18.0	25.6496	36.1403	24.3314	4.472
20.0	24.9095	35.8543	24.3409	4.470
22.0	24.0816	35.8062	24.5543	4.453
24.0	23.4007	35.9984	24.9028	4.441
26.0	22.7820	36.1869	25.2268	4.450
28.0	22.5036	36.2873	25.3840	4.465
30.0	22.1747	36.2825	25.4741	4.465
32.0	21.2171	36.1769	25.6611	4.466
34.0	20.4651	36.3601	26.0075	4.433
36.0	20.2538	36.4003	26.0952	4.427
38.0	19.8661	36.3485	26.1589	4.450
40.0	19.5906	36.4434	26.3048	4.490
42.0	19.4103	36.4610	26.3655	4.490
44.0	19.2324	36.4410	26.3965	4.508
46.0	19.1736	36.3994	26.3797	4.532
48.0	19.1307	36.4433	26.4247	4.536
50.0	18.9559	36.4970	26.5112	4.532
52.0	18.9096	36.3831	26.4353	4.517

DEPTH (m)	TEMPERATURE (°C)	SALINITY (0/00)	DENSITY (SIGMA-T)	LIGHT TRANSMISSION (VOLTS# 0)
CRUISE 3				
STATION D-3				
6.0	28.8880	33.0912	20.9726	4.457
8.0	28.7967	33.6356	21.4177	4.468
10.0	28.7293	34.0446	21.7498	4.477
12.0	28.4483	34.3116	22.0450	4.482
14.0	28.8143	34.9795	22.4299	4.487
16.0	28.7961	35.2343	22.6290	4.505
18.0	28.2159	35.0978	22.7175	4.496
20.0	26.3604	34.6457	22.9707	4.428
22.0	25.9050	35.1516	23.4988	4.379
24.0	26.1646	35.9329	24.0125	4.386
26.0	25.6316	36.2324	24.4072	4.462
28.0	25.3170	36.2235	24.4979	4.484
30.0	24.6895	36.3177	24.7619	4.491
32.0	23.9878	36.1710	24.8609	4.489
34.0	23.3523	36.0740	24.9748	4.478
36.0	22.7050	36.0850	25.1715	4.464
38.0	22.0855	36.4236	25.6073	4.480
40.0	21.7489	36.3800	25.6691	4.483
42.0	21.3514	36.4086	25.8021	4.446
44.0	20.7959	36.5574	26.0693	4.481
46.0	20.5259	36.5912	26.1689	4.485
48.0	20.2419	36.5512	26.2146	4.468
50.0	19.8833	36.5820	26.3341	4.433
52.0	19.5495	36.5816	26.4221	4.435
54.0	19.3658	36.5681	26.4598	4.465
56.0	19.2565	36.5565	26.4794	4.513
58.0	19.2213	36.6000	26.5220	4.543
60.0	19.1277	36.6203	26.5620	4.553
62.0	19.0706	36.5143	26.4950	4.548
64.0	19.0288	36.4483	26.4549	4.545
66.0	18.9536	36.5848	26.5797	4.550
68.0	18.7521	36.4553	26.5314	4.548

DEPTH (m)	TEMPERATURE (°C)	SALINITY (0/00)	DENSITY (SIGMA-T)	LIGHT TRANSMISSION (VOLTS# 0)
CRUISE 3				
STATION D-4				
4.0	28.9129	32.8220	20.7638	1.234
6.0	28.9648	32.9054	20.8092	1.238
8.0	28.9807	33.2636	21.0750	1.215
10.0	28.7210	33.6827	21.4784	1.230
12.0	28.6803	34.0601	21.7778	1.265
14.0	28.5272	34.3392	22.0399	1.236
16.0	28.1302	34.4309	22.2400	1.246
18.0	27.8818	34.5382	22.4025	1.245
20.0	27.7435	34.7957	22.6429	1.218
22.0	27.6451	35.1884	22.9730	1.232
24.0	27.4199	35.9733	23.6422	1.226
26.0	27.0711	36.1036	23.8539	1.248
28.0	26.6728	36.0240	23.9208	1.281
30.0	26.2100	36.1650	24.1748	1.219
32.0	25.6434	36.3257	24.4748	1.267
34.0	25.3464	36.2930	24.5419	1.259
36.0	25.0652	36.2842	24.6216	1.262
38.0	24.7068	36.3315	24.7672	1.251
40.0	24.1205	36.2910	24.9132	1.284
42.0	23.4260	36.1853	25.0379	1.290
44.0	22.8554	36.3436	25.3258	1.270
46.0	22.2273	36.4026	25.5513	1.263
48.0	21.5269	36.4191	25.7612	1.258
50.0	21.1093	36.5306	25.9626	1.299
52.0	20.6584	36.6447	26.1741	1.263
54.0	20.2697	36.5471	26.2040	1.249
56.0	19.9868	36.4928	26.2379	1.247
58.0	19.7804	36.5199	26.3136	1.235
60.0	19.6658	36.5363	26.3565	1.260
62.0	19.5326	36.5445	26.3979	1.286
64.0	19.4589	36.5681	26.4355	1.279
66.0	19.3697	36.5115	26.4151	1.297
68.0	19.2517	36.5616	26.4845	1.309
70.0	19.1472	36.5300	26.4873	1.265
72.0	19.0728	36.5676	26.5356	1.300
74.0	18.9369	36.5493	26.5566	1.314
76.0	18.6915	36.5273	26.6025	1.329
78.0	18.5384	36.4827	26.6072	1.294
80.0	18.4266	36.5448	26.6835	1.291
82.0	18.3374	36.5611	26.7186	1.300
84.0	18.2714	36.4987	26.6871	1.271
86.0	18.2266	36.4370	26.6506	1.269
88.0	18.0968	36.4722	26.7104	1.290

DEPTH (m)	TEMPERATURE (°C)	SALINITY (0/00)	DENSITY (SIGMA-T)	LIGHT TRANSMISSION (VOLTS# 0)
90.0	17.9969	36.4418	26.7119	1.297
92.0	17.8410	36.4748	26.7762	1.259
94.0	17.7470	36.3606	26.7112	1.246
96.0	17.7169	36.3572	26.7159	1.231
98.0	17.5965	36.3553	26.7442	1.227
100.0	17.4435	36.3532	26.7800	1.213
102.0	17.3754	36.3882	26.8238	1.231
104.0	17.3389	36.3555	26.8074	1.225
106.0	17.3260	36.3459	26.8030	1.219
108.0	17.2762	36.3654	26.8303	1.230
110.0	16.9856	36.3951	26.9237	1.283
112.0	16.8010	36.2934	26.8890	1.275
114.0	16.6235	36.2993	26.9359	1.297
116.0	16.3992	36.2669	26.9637	1.310
118.0	16.1747	36.2082	26.9708	1.282
120.0	15.9128	36.2686	27.0785	1.296
122.0	15.7744	36.1185	26.9936	1.271
124.0	15.7557	36.1230	27.0015	1.258
126.0	15.6917	36.1854	27.0646	1.229
128.0	15.6344	36.1900	27.0814	1.232
130.0	15.5680	36.1978	27.1025	1.231
132.0	15.4244	36.1107	27.0674	1.276
134.0	15.2614	36.1081	27.1022	1.291
136.0	15.1227	36.2840	27.2702	1.207
138.0	14.8852	36.1286	27.2020	1.295
140.0	14.7086	36.0503	27.1800	1.323
142.0	14.6374	35.9085	27.0852	1.309
144.0	14.3757	35.9891	27.2049	1.301
146.0	14.2215	36.1014	27.3258	1.209
148.0	14.2386	35.9650	27.2157	1.239
150.0	14.2352	35.8932	27.1605	1.262
152.0	14.2069	35.9157	27.1841	1.216
154.0	14.1531	36.0302	27.2850	1.228
156.0	14.1406	35.9525	27.2271	1.266
158.0	14.1221	35.8494	27.1506	1.239
160.0	14.0680	35.9041	27.2049	1.207
162.0	13.9611	35.8245	27.1655	1.253
164.0	13.9059	35.8922	27.2300	1.192
166.0	13.7931	35.9198	27.2754	1.203
168.0	13.6771	35.8190	27.2212	1.227
170.0	13.1573	35.7710	27.2914	1.210
172.0	12.9123	35.7262	27.3063	1.232
174.0	12.9140	35.8057	27.3681	1.206
176.0	12.9081	35.6913	27.2797	1.221
178.0	12.9069	35.6880	27.2775	1.197
180.0	12.7953	35.6646	27.2817	1.240

DEPTH (m)	TEMPERATURE (°C)	SALINITY (0/00)	DENSITY (SIGMA-T)	LIGHT TRANSMISSION (VOLTS# 0)
182.0	12.5079	35.6751	27.3473	1.204
184.0	12.2596	35.6875	27.4060	1.239
186.0	11.9133	35.5519	27.3669	1.238
188.0	11.7619	35.6427	27.4672	1.234
190.0	11.5540	35.4886	27.3858	1.240
192.0	11.2452	35.5530	27.4942	1.240

CRUISE 3
STATION S-1

DEPTH (m)	TEMPERATURE (°C)	SALINITY (0/00)	DENSITY (SIGMA-T)	LIGHT TRANSMISSION (VOLTS# 0)
2.0	27.9533	8.4005	2.8274	3.944
3.0	28.7984	33.6666	21.4406	4.388
4.0	28.7969	33.8995	21.6174	4.428
5.0	28.7819	33.8078	21.5530	4.415
6.0	28.7012	33.8197	21.5887	4.419
7.0	28.5328	33.9310	21.7287	4.396
8.0	28.4549	33.9457	21.7655	4.408
9.0	28.3259	34.1147	21.9361	4.399
10.0	28.1666	34.0375	21.9298	4.421
11.0	28.0529	34.0748	21.9952	4.198
12.0	27.9637	34.1499	22.0813	3.630
13.0	27.8054	34.2498	22.2085	3.048
14.0	27.6894	34.2514	22.2475	2.670
15.0	27.6432	34.2392	22.2531	2.594
16.0	27.5770	34.3189	22.3350	2.688
17.0	27.5104	34.2956	22.3388	2.115
18.0	27.4458	34.4071	22.4443	1.837
19.0	27.3722	34.3938	22.4579	1.854
20.0	27.0676	34.6007	22.7128	1.802
21.0	25.9052	35.3473	23.6473	1.706
22.0	25.4468	35.8375	24.1590	1.152

DEPTH (m)	TEMPERATURE (°C)	SALINITY (0/00)	DENSITY (SIGMA-T)	LIGHT TRANSMISSION (VOLTS# 0)
CRUISE 3				
STATION S-2				
2.0	29.9580	31.7220	19.5893	4.207
4.0	29.3545	32.8697	20.6523	4.303
6.0	28.7614	33.7246	21.4968	4.357
8.0	28.7428	33.8975	21.6339	4.410
10.0	28.5666	33.9988	21.7690	4.428
12.0	28.3655	34.0464	21.8713	4.437
14.0	28.0818	34.1568	22.0479	4.440
16.0	27.9034	34.2461	22.1739	4.442
18.0	27.7901	34.2438	22.2089	4.425
20.0	27.5820	34.2798	22.3037	4.399
22.0	27.4901	34.2209	22.2887	4.349
24.0	26.8711	34.5769	22.7574	4.050
26.0	21.4644	36.7263	26.0110	2.829

CRUISE 3
STATION S-3

DEPTH (m)	TEMPERATURE (°C)	SALINITY (0/00)	DENSITY (SIGMA-T)	LIGHT TRANSMISSION (VOLTS# 0)
2.0	29.3832	30.4478	18.8153	4.462
4.0	29.1539	30.6975	19.0772	4.475
6.0	28.7863	31.9867	20.1732	4.461
8.0	28.9400	32.9869	20.8791	4.498
10.0	28.9013	33.1764	21.0354	4.514
12.0	28.8782	33.2389	21.0904	4.511
14.0	28.8322	33.5929	21.3736	4.504
16.0	28.7963	34.0088	21.7005	4.508
18.0	28.5877	34.7355	22.3202	4.500
20.0	28.0540	35.1533	22.8129	4.495
22.0	27.3010	35.5707	23.3748	4.488
24.0	26.7106	35.5695	23.5630	4.483
26.0	24.6300	35.8025	24.3861	4.464
28.0	23.6080	35.6330	24.5623	4.434
30.0	23.0155	35.9151	24.9513	4.426
32.0	22.5935	35.8794	25.0456	4.442
34.0	22.2441	36.0612	25.2848	4.458
36.0	21.4001	36.2253	25.6477	4.391
38.0	20.4301	36.3803	26.0322	4.221
40.0	20.1000	36.4628	26.1845	4.141
42.0	19.9945	36.4035	26.1670	4.194
44.0	19.8410	36.5763	26.3410	4.401
46.0	19.7780	36.4257	26.2416	4.473
48.0	19.6895	36.3359	26.1958	4.517
50.0	19.5548	36.4139	26.2914	4.531
52.0	19.3908	36.4504	26.3624	4.236
54.0	19.2705	36.3458	26.3131	3.814
56.0	19.2224	36.4948	26.4406	3.737
58.0	19.1944	36.5103	26.4599	3.668
60.0	19.2669	36.3014	26.2798	3.592
62.0	19.2222	36.3124	26.2999	3.455

DEPTH (m)	TEMPERATURE (°C)	SALINITY (0/00)	DENSITY (SIGMA-T)	LIGHT TRANSMISSION (VOLTS# 0)
CRUISE 3				
STATION S-4				
4.0	29.9217	30.9394	19.0308	4.183
6.0	29.4171	31.3820	19.5070	4.303
8.0	28.7271	32.1140	20.2889	4.413
10.0	27.5939	33.4108	21.6409	4.416
12.0	26.7717	34.1342	22.4526	4.380
14.0	26.1165	34.7360	23.1164	4.392
16.0	25.4733	34.9234	23.4588	4.384
18.0	24.0109	35.4517	24.3037	4.410
20.0	22.9807	35.8234	24.8912	4.419
22.0	21.8502	36.2700	25.5566	4.410
24.0	21.2209	36.4548	25.8736	4.423
26.0	20.7895	36.4513	25.9893	4.461
28.0	20.5662	36.4706	26.0651	4.490
30.0	20.4357	36.5576	26.1673	4.507
32.0	20.2729	36.5621	26.2147	4.521
34.0	20.1673	36.4744	26.1755	4.533
36.0	20.0991	36.5002	26.2136	4.536
38.0	20.0160	36.4620	26.2064	4.541
40.0	19.8714	36.6319	26.3758	4.544
42.0	19.7204	36.5565	26.3577	4.551
44.0	19.6694	36.4755	26.3086	4.540
46.0	19.6276	36.5519	26.3786	4.547
48.0	19.5743	36.6012	26.4306	4.545
50.0	19.5349	36.5427	26.3959	4.[illegible]50
52.0	19.3613	36.5122	26.4179	4.554
54.0	19.2377	36.5374	26.4695	4.556
56.0	19.1749	36.5494	26.4951	4.558
58.0	19.1408	36.4488	26.4263	4.553
60.0	19.1287	36.3988	26.3909	4.557
62.0	19.0504	36.4596	26.4580	4.556
64.0	19.0345	36.5441	26.5274	4.557
66.0	18.9476	36.4169	26.4516	4.557
68.0	18.9360	36.3330	26.3899	4.561
70.0	18.8857	36.5580	26.5765	4.562
72.0	18.8538	36.5413	26.5718	4.562
74.0	18.7732	36.4129	26.4933	4.562
76.0	18.5221	36.4468	26.5836	4.562
78.0	18.3501	36.5013	26.6692	4.553
80.0	18.2661	36.4938	26.6846	4.557
82.0	18.2298	36.3680	26.5965	4.559
84.0	18.0680	36.4613	26.7092	4.565
86.0	17.9518	36.5284	26.7901	4.571
88.0	17.9029	36.4186	26.7174	4.571

DEPTH (m)	TEMPERATURE (°C)	SALINITY (0/00)	DENSITY (SIGMA-T)	LIGHT TRANSMISSION (VOLTS# 0)
90.0	17.8616	36.2902	26.6283	4.578
92.0	17.7049	36.3339	26.7008	4.573
94.0	17.6461	36.4569	26.8106	4.573
96.0	17.5897	36.3866	26.7700	4.573
98.0	17.5937	36.3625	26.7505	4.575
100.0	17.5834	36.3198	26.7199	4.574
102.0	17.5890	36.4103	26.7886	4.576
104.0	17.5399	36.3056	26.7196	4.571
106.0	17.3645	36.3043	26.7615	4.575
108.0	17.3260	36.3070	26.7730	4.576
110.0	17.2944	36.3034	26.7779	4.575
112.0	17.2229	36.3160	26.8050	4.576
114.0	17.0589	36.2809	26.8175	4.577
116.0	16.8673	36.4204	26.9716	4.573
118.0	16.7947	36.4191	26.9881	4.572
120.0	16.6807	36.2700	26.8996	4.577
122.0	16.5467	36.0937	26.7945	4.575
124.0	16.4006	36.2447	26.9461	4.573
126.0	16.3335	36.2980	27.0033	4.578
128.0	16.2413	36.2189	26.9635	4.576
130.0	16.2212	36.2277	26.9751	4.577
132.0	16.1118	36.2260	26.9992	4.576
134.0	15.9979	36.1601	26.9745	4.576
136.0	15.8970	36.1301	26.9746	4.578
138.0	15.7882	36.1429	27.0095	4.577
140.0	15.7010	36.2125	27.0836	4.578
142.0	15.6558	36.1455	27.0418	4.576
144.0	15.5976	36.1062	27.0246	4.575
146.0	15.4326	36.2131	27.1452	4.572
148.0	15.3245	36.2173	27.1729	4.577
150.0	15.1998	36.1421	27.1425	4.572
152.0	15.0397	36.0906	27.1381	4.576
154.0	15.0134	36.1470	27.1879	4.578
156.0	14.9534	36.1415	27.1970	4.572
158.0	14.8324	36.1059	27.1960	4.572
160.0	14.7481	36.0307	27.1561	4.571
162.0	14.6398	36.0811	27.2191	4.570
164.0	14.4558	36.0688	27.2497	4.557
166.0	14.4016	35.9351	27.1573	4.524
168.0	14.3200	35.9249	27.1670	4.487
170.0	14.2675	36.0583	27.2823	4.437
172.0	14.2452	36.0692	27.2956	4.408
174.0	14.2444	35.9293	27.1867	4.404
176.0	14.2419	35.7826	27.0728	4.401
178.0	14.1950	36.0076	27.2584	4.398
180.0	14.1590	35.9761	27.2415	4.397

DEPTH (m)	TEMPERATURE (°C)	SALINITY (0/00)	DENSITY (SIGMA-T)	LIGHT TRANSMISSION (VOLTS# 0)
182.0	14.1395	35.9453	27.2217	4.398
184.0	14.0834	35.9164	27.2111	4.396
186.0	14.0304	35.9527	27.2508	4.397
188.0	13.9920	35.9476	27.2550	4.400
190.0	13.9567	35.8448	27.1823	4.398
192.0	13.9472	35.9071	27.2329	4.400
194.0	13.9272	35.7851	27.1420	4.395
196.0	13.8962	35.8326	27.1856	4.398
198.0	13.8523	35.9397	27.2785	4.401
200.0	13.8160	35.7831	27.1639	4.407
202.0	13.7837	35.8514	27.2240	4.408
204.0	13.7189	35.7704	27.1744	4.405
206.0	13.5940	35.7981	27.2223	4.391
208.0	13.4323	35.8032	27.2599	4.351
210.0	13.3885	35.9063	27.3495	4.310
212.0	13.2731	35.7829	27.2769	4.287
214.0	13.1056	35.6934	27.2414	4.374
216.0	13.0365	35.6472	27.2193	4.447
220.0	12.6554	35.6256	27.2792	4.516
222.0	12.5468	35.6421	27.3137	4.496
224.0	12.5301	35.7012	27.3633	4.461
226.0	12.4995	35.6699	27.3449	4.453
228.0	12.4902	35.6589	27.3381	4.447
230.0	12.4633	35.6529	27.3388	4.441
232.0	12.4455	35.6624	27.3497	4.434
234.0	12.3882	35.6090	27.3192	4.437
236.0	12.3173	35.6296	27.3493	4.458
238.0	12.2725	35.6469	27.3717	4.472
240.0	12.1908	35.5688	27.3264	4.484
242.0	12.0923	35.5106	27.3000	4.501
244.0	12.0296	35.6783	27.4436	4.502
246.0	12.0238	35.5938	27.3785	4.500
248.0	11.9457	35.4963	27.3172	4.501
250.0	11.9161	35.5357	27.3537	4.502
252.0	11.8856	35.5765	27.3916	4.503
254.0	11.8251	35.4887	27.3343	4.503
256.0	11.7605	35.5493	27.3942	4.506
258.0	11.7040	35.6274	27.4662	4.503
260.0	11.6242	35.4818	27.3671	4.503
262.0	11.5784	35.3996	27.3113	4.492
264.0	11.4454	35.5070	27.4206	4.487
266.0	11.3360	35.4533	27.3990	4.511
268.0	11.2955	35.4719	27.4211	4.505
270.0	11.1171	35.4748	27.4565	4.456
272.0	10.6898	35.6249	27.6525	4.373
280.0	9.4572	35.8532	28.0453	4.454

DEPTH (m)	TEMPERATURE (°C)	SALINITY (0/00)	DENSITY (SIGMA-T)	LIGHT TRANSMISSION (VOLTS# 0)
284.0	9.6479	35.3156	27.5911	4.481
286.0	9.5133	35.3319	27.6266	4.489
288.0	9.4013	35.1735	27.5204	4.496

CRUISE 3

STATION S-5

DEPTH (m)	TEMPERATURE (°C)	SALINITY (0/00)	DENSITY (SIGMA-T)	LIGHT TRANSMISSION (VOLTS# 0)
6.0	28.9677	33.0523	20.9138	4.468
8.0	28.8438	33.2523	21.1119	4.482
10.0	28.7792	33.4146	21.2561	4.494
12.0	28.7573	33.5776	21.3868	4.495
14.0	28.7516	33.6389	21.4351	4.501
16.0	28.7228	33.7559	21.5333	4.500
18.0	28.6878	33.9048	21.6576	4.498
20.0	28.6817	34.4212	22.0509	4.494
22.0	28.5574	35.4582	22.8781	4.487
24.0	27.5904	36.1100	23.6908	4.486
26.0	26.3610	36.2458	24.1869	4.501
28.0	25.2683	36.4746	24.7047	4.511
30.0	24.5264	36.6190	25.0424	4.506
32.0	23.1556	36.6851	25.5001	4.523
34.0	22.6556	36.6342	25.6063	4.529
36.0	22.5377	36.7012	25.6915	4.531
38.0	22.3533	36.7229	25.7610	4.540
40.0	22.1372	36.5997	25.7281	4.534
42.0	21.8694	36.5876	25.7946	4.533
44.0	21.5304	36.5153	25.8342	4.532
46.0	21.2111	36.6737	26.0446	4.534
48.0	21.0965	36.5716	25.9978	4.531
50.0	20.8038	36.5601	26.0693	4.524
52.0	20.5582	36.6092	26.1739	4.523
54.0	20.3273	36.6269	26.2499	4.515
56.0	20.1419	36.5573	26.2462	4.513
58.0	20.0619	36.6387	26.3302	4.518
60.0	19.8824	36.6583	26.3932	4.521
62.0	19.7183	36.5801	26.3764	4.528
64.0	19.6063	36.6286	26.4433	4.533
66.0	19.5049	36.7106	26.5332	4.537
68.0	19.3802	36.5583	26.4485	4.542
70.0	19.2362	36.6552	26.5607	4.545
72.0	19.1389	36.6402	26.5745	4.548
74.0	19.1077	36.5069	26.4797	4.552
76.0	19.0686	36.5109	26.4930	4.555
78.0	18.9069	36.7141	26.6916	4.558
80.0	18.9129	36.5430	26.5579	4.557
82.0	18.7954	36.5210	26.5711	4.556
84.0	18.7314	36.5125	26.5810	4.556
86.0	18.6951	36.6039	26.6608	4.556
88.0	18.5943	36.5099	26.6139	4.561
90.0	18.5789	36.5054	26.6144	4.559

DEPTH (m)	TEMPERATURE (°C)	SALINITY (0/00)	DENSITY (SIGMA-T)	LIGHT TRANSMISSION (VOLTS# 0)
92.0	18.5448	36.6724	26.7521	4.559
94.0	18.3874	36.5574	26.7032	4.563
96.0	18.2673	36.4801	26.6737	4.560
98.0	18.1160	36.6711	26.8594	4.567
100.0	18.0053	36.5453	26.7899	4.567
102.0	17.9635	36.4793	26.7493	4.571
104.0	17.8382	36.6444	26.9081	4.568
106.0	17.7754	36.4557	26.7777	4.569
108.0	17.6812	36.4168	26.7709	4.569
110.0	17.5780	36.5457	26.8961	4.572
112.0	17.4599	36.4462	26.8480	4.572
114.0	17.3484	36.3860	26.8287	4.571
116.0	17.1958	36.3719	26.8548	4.574
118.0	17.0257	36.4191	26.9326	4.574
120.0	16.9410	36.3775	26.9207	4.574
122.0	16.8190	36.3726	26.9462	4.573
124.0	16.6796	36.3986	26.9995	4.576
126.0	16.5479	36.3195	26.9695	4.576
128.0	16.3722	36.2736	26.9753	4.573
130.0	16.2757	36.2924	27.0126	4.581
132.0	16.2264	36.2967	27.0274	4.576
134.0	16.1728	36.2749	27.0230	4.575
136.0	16.1411	36.2295	26.9951	4.576
138.0	16.0574	36.4928	27.2191	4.576
140.0	16.0333	36.1997	26.9971	4.574
142.0	15.9977	36.1136	26.9385	4.575
144.0	15.8924	36.2597	27.0763	4.574
146.0	15.8304	36.1196	26.9817	4.575
148.0	15.6973	36.1788	27.0583	4.570
150.0	15.6458	36.2189	27.1011	4.572
152.0	15.5572	36.1616	27.0768	4.571
154.0	15.4839	36.1198	27.0610	4.571
156.0	15.3839	36.1283	27.0902	4.573
158.0	15.3100	36.2147	27.1741	4.570
160.0	15.2158	36.1107	27.1144	4.560
162.0	15.0473	36.0939	27.1390	4.535
164.0	14.9779	36.0354	27.1090	4.493
166.0	14.9544	36.0300	27.1099	4.489
168.0	14.9133	36.0136	27.1062	4.477
170.0	14.8779	36.0373	27.1325	4.476
172.0	14.8436	36.0251	27.1306	4.469
174.0	14.7815	36.0035	27.1275	4.500
176.0	14.6631	36.0743	27.2088	4.512
178.0	14.5379	35.9801	27.1627	4.515
180.0	14.5107	35.8763	27.0877	4.519
182.0	14.4670	36.0104	27.2018	4.522

DEPTH (m)	TEMPERATURE (°C)	SALINITY (0/00)	DENSITY (SIGMA-T)	LIGHT TRANSMISSION (VOLTS# 0)
184.0	14.3641	35.9124	27.1477	4.528
186.0	14.2227	35.9148	27.1800	4.540
188.0	14.0626	35.9071	27.2083	4.542
190.0	13.9283	35.9803	27.2942	4.548
192.0	13.8429	35.8160	27.1839	4.550
194.0	13.6971	35.8584	27.2477	4.548
196.0	13.6295	35.8066	27.2214	4.553
198.0	13.5338	35.6877	27.1486	4.550
200.0	13.4467	35.8862	27.3217	4.557
202.0	13.3522	35.8823	27.3383	4.554
204.0	13.2560	35.8344	27.3207	4.556
206.0	13.1567	35.6960	27.2329	4.565
208.0	12.9901	35.6843	27.2578	4.552
210.0	12.8701	35.7016	27.2956	4.552
212.0	12.7592	35.6376	27.2678	4.548
214.0	12.6756	35.6701	27.3100	4.540
216.0	12.5958	35.7454	27.3849	4.542
218.0	12.4959	35.6171	27.3042	4.540
220.0	12.4585	35.5489	27.2583	4.544
222.0	12.4674	35.6274	27.3180	4.535
224.0	12.4502	35.5289	27.2442	4.534
226.0	12.4266	35.6352	27.3322	4.530
228.0	12.4349	35.6684	27.3565	4.521
230.0	12.3985	35.5480	27.2694	4.507
232.0	12.3816	35.4288	27.1794	4.486
236.0	12.1670	35.5481	27.3148	4.412
238.0	11.9619	35.5839	27.3827	4.371
240.0	11.7852	35.6294	27.4523	4.364
242.0	11.6184	35.5624	27.4315	4.382
244.0	11.5057	35.4684	27.3790	4.410
246.0	11.3987	35.4873	27.4140	4.425
248.0	11.3489	35.4398	27.3860	4.428
250.0	11.2416	35.4170	27.3880	4.427
252.0	11.1648	35.4496	27.4279	4.431
254.0	11.1000	35.3888	27.3921	4.428
256.0	11.0433	35.3855	27.3999	4.396
258.0	10.9137	35.4318	27.4600	4.420
260.0	10.7107	35.3451	27.4285	4.473
262.0	10.5963	35.2668	27.3875	4.456
264.0	10.5722	35.2667	27.3918	4.450
266.0	10.3796	35.4662	27.5830	4.458
268.0	10.3965	35.1967	27.3679	4.443

DEPTH (m)	TEMPERATURE (°C)	SALINITY (0/00)	DENSITY (SIGMA-T)	LIGHT TRANSMISSION (VOLTS# 0)
CRUISE 3				
STATION S-6				
4.0	28.3502	34.1593	21.9619	1.269
6.0	28.3465	34.3875	22.1360	1.257
8.0	28.2201	34.5922	22.3328	1.262
10.0	27.9588	34.7801	22.5609	1.265
12.0	27.8629	34.8716	22.6616	1.271
14.0	27.2948	34.8045	22.7946	1.273
16.0	26.7261	35.0919	23.1949	1.247
18.0	26.1319	35.3124	23.5503	1.250
20.0	24.8375	36.0454	24.5091	1.248
22.0	24.4975	36.0888	24.6453	1.263
24.0	24.1022	36.1048	24.7762	1.292
26.0	22.8926	36.4819	25.4213	1.279
28.0	21.3011	36.7019	26.0435	1.271
30.0	20.2334	36.6215	26.2707	1.248
32.0	20.1005	36.6005	26.2905	1.249

DEPTH (m)	TEMPERATURE (°C)	SALINITY (0/00)	DENSITY (SIGMA-T)	LIGHT TRANSMISSION (VOLTS# 0)
CRUISE 3				
STATION S-7				
4.0	28.3243	34.3936	22.1481	4.366
6.0	28.3276	34.3360	22.1032	4.368
8.0	28.3209	34.3794	22.1384	4.372
10.0	28.3227	34.4636	22.2016	4.372
12.0	28.3176	34.5132	22.2408	4.378
14.0	28.0064	34.5835	22.3961	4.365
16.0	27.7467	34.5274	22.4382	4.355
18.0	27.5248	34.8461	22.7521	4.330
20.0	27.4686	35.0527	22.9271	4.368
22.0	26.5390	35.0741	23.2411	4.375
24.0	23.6133	36.0649	24.8922	4.361
26.0	22.0602	36.4674	25.6481	4.328
28.0	21.3687	36.5095	25.8748	4.264
30.0	21.0647	36.4986	25.9504	4.237
32.0	20.7342	36.6101	26.1268	4.273
34.0	20.4203	36.6063	26.2091	4.129

CRUISE 3
STATION S-8

DEPTH (m)	TEMPERATURE (°C)	SALINITY (0/00)	DENSITY (SIGMA-T)	LIGHT TRANSMISSION (VOLTS# 0)
4.0	29.6797	31.0702	19.1839	4.500
6.0	29.6506	31.4157	19.4543	4.500
8.0	29.4949	32.0732	20.0033	4.492
10.0	29.2795	33.6107	21.2379	4.472
12.0	29.1196	33.9413	21.5417	4.514
14.0	28.9394	34.1885	21.7890	4.508
16.0	27.9760	34.8668	22.6211	4.480
18.0	27.7216	35.3358	23.0601	4.488
20.0	26.1970	35.4452	23.6314	4.462
22.0	25.1718	36.3841	24.6647	4.465
24.0	24.7207	36.8590	25.1658	4.499
26.0	24.4457	36.9429	25.3134	4.503
28.0	24.0788	37.0613	25.5144	4.505
30.0	23.7344	37.3235	25.8180	4.515
32.0	23.0835	37.4290	26.0908	4.501
34.0	22.7570	37.1797	25.9950	4.497
36.0	22.7888	36.8542	25.7363	4.513
38.0	22.3354	37.0014	25.9798	4.492
40.0	22.1580	37.1457	26.1412	4.496
42.0	22.0651	36.9472	26.0152	4.510
44.0	21.3976	37.1020	26.3217	4.501
46.0	20.8666	37.0668	26.4418	4.512
48.0	20.5927	37.2709	26.6738	4.511

DEPTH (m)	TEMPERATURE (°C)	SALINITY (0/00)	DENSITY (SIGMA-T)	LIGHT TRANSMISSION (VOLTS# 0)
CRUISE 3				
STATION S-9				
4.0	28.7319	33.2933	21.1799	4.351
6.0	28.7330	33.2286	21.1307	4.482
8.0	28.6962	33.2110	21.1294	4.485
10.0	28.6246	33.8446	21.6330	4.488
12.0	28.3433	34.3256	22.0902	4.481
14.0	27.5714	34.3360	22.3497	4.475
16.0	26.7019	34.4323	22.7011	4.471
18.0	25.9236	34.8688	23.2777	4.463
20.0	25.5467	35.4884	23.8666	4.440
22.0	24.8992	35.8569	24.3465	4.436
24.0	24.0050	35.6916	24.4892	4.447
26.0	21.4253	35.7911	25.3076	4.458
28.0	19.7434	36.5365	26.3365	4.224

DEPTH (m)	TEMPERATURE (°C)	SALINITY (0/00)	DENSITY (SIGMA-T)	LIGHT TRANSMISSION (VOLTS# 0)

CRUISE 3
SITE B

DEPTH (m)	TEMPERATURE (°C)	SALINITY (0/00)	DENSITY (SIGMA-T)	LIGHT TRANSMISSION (VOLTS# 0)
6.0	28.2427	34.1852	22.0217	4.468
8.0	27.5911	34.3687	22.3681	4.472
10.0	27.1990	34.9628	22.9457	4.450
12.0	27.4191	35.4468	23.2425	4.408
14.0	27.6320	35.7606	23.4117	4.481
16.0	27.0516	36.0066	23.7865	4.490
18.0	26.8092	36.1562	23.9779	4.478
20.0	26.0134	36.2491	24.3005	4.489
22.0	25.3028	36.3383	24.5899	4.491
24.0	24.7822	36.3190	24.7348	4.483
26.0	24.1791	36.4035	24.9812	4.481
28.0	23.5171	36.2893	25.0911	4.477
30.0	22.8882	36.2599	25.2523	4.466
32.0	22.5169	36.2671	25.3647	4.456
34.0	22.2576	36.4088	25.5474	4.451
36.0	22.0661	36.4094	25.6023	4.456
38.0	21.6187	36.5508	25.8365	4.453
40.0	21.3025	36.4088	25.8158	4.466
42.0	21.1042	36.6374	26.0463	4.480
44.0	20.5078	36.5406	26.1347	4.477
46.0	20.2233	36.5933	26.2521	4.456
48.0	20.0587	36.5510	26.2636	4.445
50.0	19.7048	36.5116	26.3272	4.460
52.0	19.1400	36.7083	26.6267	4.440
54.0	18.9627	36.7526	26.7069	4.440
56.0	18.9459	36.6428	26.6264	4.461
58.0	18.9552	36.5682	26.5665	4.466

DEPTH (m)	TEMPERATURE (°C)	SALINITY (0/00)	DENSITY (SIGMA-T)	LIGHT TRANSMISSION (VOLTS# 0)
CRUISE 3				
SITE C				
4.0	29.6438	32.6658	20.4001	4.508
6.0	29.6308	32.6573	20.3989	4.506
8.0	29.6392	32.6060	20.3574	4.510
10.0	29.5977	32.7019	20.4438	4.510
12.0	29.3774	33.0578	20.7869	4.508
14.0	28.8777	33.6538	21.4046	4.511
16.0	28.4478	34.0223	21.8259	4.512
18.0	28.1252	34.3001	22.1425	4.503
20.0	27.9306	34.4780	22.3409	4.487
22.0	28.3440	34.9815	22.5872	4.494
24.0	28.2867	34.9354	22.5712	4.506
26.0	28.1188	35.4732	23.0344	4.498
28.0	27.7329	35.8293	23.4311	4.504
30.0	27.3511	35.9231	23.6264	4.503
32.0	26.9207	36.0083	23.8296	4.499
34.0	26.4800	36.0988	24.0389	4.503
36.0	26.0288	36.1042	24.1856	4.500
38.0	25.2093	36.2168	24.5257	4.489
40.0	24.2203	36.1479	24.7740	4.498
42.0	23.7451	36.1823	24.9418	4.502
44.0	22.9649	36.1751	25.1649	4.509
46.0	22.4691	36.2294	25.3496	4.519
48.0	21.9762	36.3446	25.5781	4.523
50.0	21.5322	36.2929	25.6627	4.540
52.0	21.2934	36.3003	25.7349	4.544
54.0	20.9312	36.3640	25.8836	4.545
56.0	20.5560	36.2775	25.9193	4.542
58.0	20.2935	36.3292	26.0298	4.547
60.0	20.1010	36.4089	26.1429	4.540
62.0	19.8712	36.3680	26.1724	4.544
64.0	19.6140	36.3468	26.2241	4.547
66.0	19.4888	36.3669	26.2724	4.548
68.0	19.3600	36.4330	26.3571	4.550
70.0	19.2387	36.4929	26.4349	4.553
72.0	19.1550	36.4040	26.3881	4.553
74.0	18.9716	36.3803	26.4171	4.555
76.0	18.8422	36.3231	26.4063	4.558
78.0	18.7160	36.4515	26.5377	4.564
80.0	18.5713	36.3481	26.4947	4.564
82.0	18.4180	36.4608	26.6207	4.567
84.0	18.3458	36.3529	26.5556	4.568
86.0	18.2395	36.3235	26.5596	4.568
88.0	18.0522	36.4495	26.7040	4.572

DEPTH (m)	TEMPERATURE (°C)	SALINITY (0/00)	DENSITY (SIGMA-T)	LIGHT TRANSMISSION (VOLTS# 0)
90.0	17.9559	36.4590	26.7354	4.572
92.0	17.8539	36.3318	26.6624	4.571
94.0	17.7092	36.3604	26.7203	4.574
96.0	17.5865	36.4393	26.8116	4.575
98.0	17.4515	36.3430	26.7702	4.578
100.0	17.3512	36.3790	26.8226	4.577
102.0	17.2959	36.3803	26.8371	4.579
104.0	17.1768	36.3603	26.8505	4.579
106.0	17.1398	36.2384	26.7650	4.575
108.0	17.0760	36.3466	26.8642	4.581
110.0	16.9395	36.3555	26.9040	4.579
112.0	16.7374	36.3002	26.9095	4.575
114.0	16.6769	36.2797	26.9080	4.537
116.0	16.5507	36.2781	26.9366	4.530
118.0	16.4618	36.4293	27.0750	4.557
120.0	16.3267	36.2462	26.9647	4.574
122.0	16.1606	36.1585	26.9355	4.574
124.0	16.0852	36.2928	27.0573	4.576
126.0	16.0346	36.1689	26.9729	4.575
128.0	16.0066	36.1371	26.9546	4.575
130.0	15.8905	36.3153	27.1199	4.574
132.0	15.8399	36.1494	27.0027	4.577
134.0	15.7389	36.1673	27.0398	4.575
136.0	15.6406	36.2129	27.0977	4.577
138.0	15.5422	36.1329	27.0580	4.576
140.0	15.4727	36.1352	27.0755	4.575
142.0	15.4738	36.1123	27.0575	4.575
144.0	15.3700	36.2196	27.1644	4.566
146.0	15.3011	36.0693	27.0631	4.573
148.0	15.1665	36.1075	27.1230	4.574
150.0	15.0287	36.1479	27.1852	4.576
152.0	14.9047	36.1316	27.2001	4.575
154.0	14.7955	36.0560	27.1653	4.574
156.0	14.7030	36.1852	27.2863	4.577
158.0	14.6220	35.9910	27.1528	4.574
160.0	14.5555	35.9704	27.1513	4.575
162.0	14.4747	35.9746	27.1722	4.576
164.0	14.3999	36.1541	27.3284	4.576
166.0	14.3280	35.8894	27.1376	4.574
168.0	14.2556	35.9506	27.2009	4.573
170.0	14.1848	35.8729	27.1555	4.571
172.0	14.1040	35.9025	27.1959	4.575
174.0	14.0216	35.9199	27.2271	4.578
176.0	13.9471	35.8703	27.2043	4.574
178.0	13.8599	35.8042	27.1711	4.574
180.0	13.8077	35.8823	27.2431	4.570

DEPTH (m)	TEMPERATURE (°C)	SALINITY (0/00)	DENSITY (SIGMA-T)	LIGHT TRANSMISSION (VOLTS# 0)
182.0	13.7296	35.8768	27.2553	4.570
184.0	13.6434	35.7565	27.1794	4.572
186.0	13.5458	35.7946	27.2295	4.575
188.0	13.4548	35.8243	27.2717	4.572
190.0	13.3895	35.7518	27.2286	4.568
192.0	13.3291	35.7709	27.2560	4.576
194.0	13.2635	35.7250	27.2337	4.571
196.0	13.2122	35.7216	27.2416	4.568
198.0	13.1538	35.6843	27.2243	4.571
200.0	13.0705	35.7379	27.2832	4.562
202.0	13.0492	35.7093	27.2652	4.559
204.0	12.9907	35.6120	27.2011	4.561
206.0	12.9058	35.6913	27.2802	4.558
208.0	12.8560	35.6823	27.2833	4.560
210.0	12.8107	35.5814	27.2134	4.558
212.0	12.7327	35.6345	27.2707	4.558
214.0	12.6755	35.6611	27.3030	4.557
216.0	12.6186	35.6545	27.3091	4.557
218.0	12.5377	35.6496	27.3215	4.551
220.0	12.4879	35.6523	27.3334	4.553
222.0	12.4400	35.5867	27.2915	4.550
224.0	12.3975	35.5620	27.2805	4.551
226.0	12.3339	35.6939	27.3964	4.546
228.0	12.3388	35.5404	27.2752	4.546
230.0	12.3227	35.5157	27.2590	4.544
232.0	12.2711	35.5597	27.3036	4.544
234.0	12.2013	35.4975	27.2685	4.544
236.0	12.1339	35.5274	27.3051	4.541
238.0	12.0652	35.5848	27.3634	4.541
240.0	12.0134	35.4882	27.2978	4.540
242.0	11.8634	35.4881	27.3266	4.534
244.0	11.7233	35.5893	27.4327	4.536
246.0	11.6460	35.4533	27.3407	4.534
248.0	11.5477	35.4546	27.3603	4.534
250.0	11.4233	35.4715	27.3969	4.531
252.0	11.3870	35.5762	27.4859	4.532
254.0	11.3360	35.4405	27.3890	4.532
256.0	11.2815	35.4557	27.4110	4.529
258.0	11.2152	35.4292	27.4025	4.526
260.0	11.1512	35.4332	27.4175	4.523
262.0	11.0954	35.5024	27.4821	4.522
264.0	11.0867	35.3977	27.4015	4.517
266.0	11.0486	35.3726	27.3888	4.514
268.0	10.9215	35.4465	27.4701	4.516
272.0	10.7701	35.3201	27.3982	4.512
274.0	10.7005	35.4455	27.5094	4.511

DEPTH (m)	TEMPERATURE (°C)	SALINITY (0/00)	DENSITY (SIGMA-T)	LIGHT TRANSMISSION (VOLTS# 0)
276.0	10.6593	35.3425	27.4358	4.505
278.0	10.5893	35.3426	27.4484	4.506
280.0	10.5639	35.3592	27.4661	4.504
282.0	10.5592	35.2703	27.3969	4.503
284.0	10.4853	35.3446	27.4685	4.499
286.0	10.4517	35.3276	27.4611	4.498
288.0	10.4650	35.2118	27.3677	4.493
290.0	10.4334	35.2851	27.4309	4.489
292.0	10.4039	35.3431	27.4818	4.491
294.0	10.4001	35.2465	27.4065	4.488
296.0	10.3631	35.2714	27.4326	4.485
298.0	10.3398	35.2368	27.4095	4.487
300.0	10.2644	35.2394	27.4247	4.487
302.0	10.2229	35.3086	27.4865	4.479
304.0	10.1924	35.2244	27.4255	4.479
306.0	10.1659	35.2529	27.4525	4.476
308.0	10.0611	35.3557	27.5518	4.474
310.0	10.0340	35.2719	27.4905	4.470

CRUISE 4
STATION C-1

DEPTH (m)	TEMPERATURE (°C)	SALINITY (0/00)	DENSITY (SIGMA-T)	LIGHT TRANSMISSION (VOLTS# 0)
2.0	18.6812	33.6924	24.1186	0.504
4.0	18.6864	33.9288	24.2930	3.140
6.0	18.6495	33.9852	24.3442	2.864
8.0	18.5612	33.9805	24.3627	2.865
10.0	18.2961	33.9348	24.3947	2.853
12.0	17.7271	33.9911	24.5760	2.837
14.0	17.4647	33.8900	24.5639	2.763
16.0	17.0566	34.2928	24.9615	2.654

DEPTH (m)	TEMPERATURE (°C)	SALINITY (0/00)	DENSITY (SIGMA-T)	LIGHT TRANSMISSION (VOLTS# 0)

CRUISE 4
STATION C-2A

DEPTH (m)	TEMPERATURE (°C)	SALINITY (0/00)	DENSITY (SIGMA-T)	LIGHT TRANSMISSION (VOLTS# 0)
2	17.4151			1.500
4	18.8089			0.998
6	17.3707			1.076
8	17.7178			1.077
10	18.2433			1.078
12	18.3141			1.086
14	18.6069			1.116
16	18.6944			1.125
18	18.7587			1.143
20	19.1106			1.155
22	19.8782			1.218
24	20.1957			1.216
26	20.2507			1.231
28	20.1258			1.221
30	20.0729			1.244
32	20.0915			1.208
34	20.1722			1.221
36	20.0900			1.235
38	19.8695			1.105
40	19.7294			1.071
42	19.1635			0.979
44	18.8754			0.858
46	18.8170			0.783
48	18.8102			0.781
50	18.8013			0.771

CRUISE 4
STATION C-2B

DEPTH (m)	TEMPERATURE (°C)	SALINITY (0/00)	DENSITY (SIGMA-T)	LIGHT TRANSMISSION (VOLTS# 0)
2	16.9123			2.902
4	18.3890			3.295
6	17.8631			3.775
8	17.4180			3.774
10	17.9277			3.807
12	18.2150			3.802
14	18.4497			3.863
16	18.5842			3.928
18	18.6774			3.966
20	18.9538			3.971
22	19.6178			4.101
24	20.1353			4.151
26	20.1419			4.167
28	20.0534			4.197
30	20.0495			4.195
32	20.0853			4.184
34	20.1997			4.196
36	20.1029			4.137
38	19.8355			3.860
40	19.6427			3.688
42	19.2025			3.523
44	18.8653			3.171
46	18.8108			2.986
48	18.7895			2.922
50	18.7805			2.852

CRUISE 4
STATION C-3

DEPTH (m)	TEMPERATURE (°C)	SALINITY (0/00)	DENSITY (SIGMA-T)	LIGHT TRANSMISSION (VOLTS# 0)
2	20.9661			3.521
4	20.9845			4.093
6	21.1950			4.124
8	21.8668			4.238
10	22.6848			4.412
12	22.8392			4.477
14	22.7720			4.486
16	22.7031			4.481
18	22.7215			4.489
20	22.7547			4.487
22	22.7380			4.475
24	22.7184			4.481
26	22.6866			4.484
28	22.6632			4.492
30	22.6365			4.490
32	22.6303			4.494
34	22.6175			4.496
36	22.5967			4.495
38	22.5781			4.498
40	22.5545			4.501
42	22.5501			4.499
44	22.5088			4.494
46	22.3466			4.500
48	22.2255			4.500
50	22.0802			4.505
52	21.9339			4.515
54	21.6900			4.517
56	21.6374			4.515
58	21.6112			4.513
60	21.4618			4.502
62	21.2818			4.470
64	21.0568			4.459
66	20.8250			4.442
68	20.3828			4.430
70	20.1201			4.412
72	19.8971			4.391
74	19.6652			4.360
76	19.3384			4.311
78	19.3226			4.312
80	19.2581			4.305
82	19.1320			4.194
84	19.0775			4.143

DEPTH (m)	TEMPERATURE (°C)	SALINITY (0/00)	DENSITY (SIGMA-T)	LIGHT TRANSMISSION (VOLTS# 0)
86	19.2488			4.256
88	19.1475			4.396
90	19.0732			4.433
92	18.9671			4.472
94	18.6821			4.499
96	18.6059			4.506
98	18.5705			4.510
100	18.4962			4.511
102	18.3219			4.406
104	18.1672			4.068
106	17.9925			3.911
108	17.9016			3.998
110	17.8909			4.024
112	17.8729			4.093
114	17.8513			4.115
116	17.8369			4.063

CRUISE 4
STATION C-4A

DEPTH (m)	TEMPERATURE (°C)	SALINITY (0/00)	DENSITY (SIGMA-T)	LIGHT TRANSMISSION (VOLTS# 0)
2	23.4668			1.149
4	23.4760			1.342
6	23.4760			1.315
8	23.4623			1.313
10	23.4661			1.306
12	23.4591			1.335
14	23.4653			1.304
16	23.4616			1.307
18	23.4595			1.316
20	23.1598			1.318
22	22.7929			1.316
24	22.3569			1.281
26	22.2564			1.293
28	22.4102			1.295
30	22.6376			1.330
32	22.6990			1.336
34	22.6958			1.336
36	22.6849			1.318
38	22.6091			1.340
40	22.4138			1.293
42	22.3686			1.321
44	22.3548			1.298
46	22.3490			1.314
48	22.1464			1.302
50	21.5453			1.277
52	21.3779			1.215
54	21.3751			1.200
56	21.4132			1.202
58	21.4280			1.217
60	21.4064			1.213
62	21.2412			1.204
64	20.8922			1.270
66	20.6367			1.277
68	20.3968			1.287
70	20.1615			1.287
72	20.4050			1.321
74	20.3608			1.324
76	20.2313			1.346
78	20.0873			1.341
80	19.9721			1.351
82	20.0241			1.352
84	19.9405			1.365

DEPTH (m)	TEMPERATURE (°C)	SALINITY (0/00)	DENSITY (SIGMA-T)	LIGHT TRANSMISSION (VOLTS# 0)
86	19.8997			1.345
88	19.5303			1.345
90	19.3129			1.346
92	19.1628			1.338
94	19.0161			1.336
96	18.9322			1.347
98	18.7959			1.336
100	18.7153			1.339
102	18.6280			1.337
104	18.4217			1.328
106	18.2617			1.326
108	18.1218			1.303
110	18.0825			1.317
112	18.0497			1.324
114	17.9499			1.352
116	17.8065			1.326
118	17.6254			1.338
120	17.4572			1.312
122	17.4269			1.337
124	17.4261			1.325
126	17.3581			1.335
128	17.3021			1.354
130	17.2312			1.335
132	17.1917			1.328
134	17.0958			1.342
136	17.0077			1.333
138	16.9116			1.343
140	16.7671			1.334
142	16.7307			1.344
144	16.6829			1.342
146	16.6493			1.333
148	16.6378			1.344
150	16.6293			1.341
152	16.6139			1.338
154	16.4633			1.337
156	16.3736			1.345
158	16.2734			1.348
160	16.1574			1.342
162	16.0582			1.365
164	15.9868			1.332
166	15.8634			1.343
168	15.7949			1.337
170	15.7501			1.339
172	15.6995			1.344
174	15.5697			1.342

DEPTH (m)	TEMPERATURE (°C)	SALINITY (0/00)	DENSITY (SIGMA-T)	LIGHT TRANSMISSION (VOLTS# 0)
176	15.4438			1.348
178	15.3658			1.321
180	15.2992			1.332
182	15.2689			1.300
184	15.2586			1.232
186	15.2479			1.246
188	15.2378			1.229
190	15.2158			1.243
192	15.1907			1.238
194	15.1775			1.236
196	15.1600			1.259
198	15.1374			1.249
200	15.1056			1.262
202	15.0634			1.274
204	15.0155			1.269
206	14.9545			1.293
208	14.9452			1.311
210	14.9232			1.289
212	14.8766			1.283
214	14.8324			1.277
216	14.8263			1.306
218	14.8048			1.289
220	14.6048			1.289
222	14.4901			1.314
224	14.4597			1.309
226	14.4409			1.303
228	14.4153			1.315
230	14.3748			1.314
232	14.2912			1.315
234	14.1802			1.308
236	14.1313			1.280
238	14.1305			1.295
240	14.1196			1.277
242	14.0816			1.281
244	14.0221			1.284
246	13.9662			1.284
248	13.9393			1.284
250	13.9247			1.267
252	13.8795			1.272
254	13.8226			1.293
256	13.7773			1.299
258	13.7475			1.279
260	13.7339			1.294
262	13.7100			1.290
264	13.6804			1.296

DEPTH (m)	TEMPERATURE (°C)	SALINITY (0/00)	DENSITY (SIGMA-T)	LIGHT TRANSMISSION (VOLTS# 0)
266	13.6599			1.304
268	13.6290			1.316
270	13.5748			1.303
272	13.5444			1.294
274	13.5156			1.269
276	13.4773			1.316
278	13.4567			1.299

CRUISE 4
STATION C-4B

DEPTH (m)	TEMPERATURE (°C)	SALINITY (0/00)	DENSITY (SIGMA-T)	LIGHT TRANSMISSION (VOLTS# 0)
2	21.1390			1.806
4	21.1436			4.199
6	21.1343			2.889
8	21.2152			2.951
10	21.6832			2.922
12	21.7796			2.959
14	21.8738			2.982
16	22.0749			3.063
18	22.0901			3.095
18.771	22.0937			3.102
22	21.9801			3.124
24	21.9551			3.127
26	21.9758			3.129
28	21.9392			3.129
30	21.9543			3.128
32	21.9541			3.128
34	21.9503			3.130
36	21.9523			3.119
38	21.9495			3.094
40	21.9061			3.068
42	21.7970			3.038
44	21.7256			3.002
46	21.6154			2.955
48	21.4408			2.921
50	21.1813			2.883
52	20.8326			2.885
54	20.6560			2.832
56	20.4047			2.883
58	20.1532			2.931
60	20.0904			2.980
62	20.0600			3.035
64	19.9945			3.074
66	19.8161			3.104
68	19.5785			3.065
70	19.3231			3.066
72	19.4932			3.034
74	19.6887			3.119
76	19.4732			3.226
78	19.3544			3.235
80	19.2678			3.238
82	19.1908			3.229
84	19.0954			3.219

DEPTH (m)	TEMPERATURE (°C)	SALINITY (0/00)	DENSITY (SIGMA-T)	LIGHT TRANSMISSION (VOLTS# 0)
86	18.8782			3.211
88	18.7019			3.232
90	18.6611			3.242
92	18.6364			3.251
94	18.6129			3.254
96	18.4287			3.255
98	18.2621			3.255
100	18.1533			3.255
102	18.1318			3.255
104	18.0506			3.254
106	17.9359			3.257
108	17.8177			3.255
110	17.7187			3.257
112	17.6641			3.257
114	17.5182			3.257
116	17.4362			3.258
118	17.2833			3.257
120	17.2074			3.257
122	17.1049			3.258
124	17.0873			3.260
126	17.0076			3.261
128	16.8980			3.265
130	16.7917			3.267
132	16.7080			3.272
134	16.6152			3.271
136	16.4768			3.273
138	16.3889			3.273
140	16.2300			3.275
142	16.2485			3.272
144	16.2391			3.274
146	16.1757			3.274
148	16.1297			3.272
150	16.0834			3.273
152	16.0628			3.274
154	16.0410			3.274
156	16.0174			3.273
158	15.9075			3.272
160	15.7750			3.261
162	15.7402			3.135
164	15.7218			3.192
166	15.5308			3.278
168	15.3728			3.257
170	15.2241			3.231
172	15.2045			3.170
174	15.1499			3.088

DEPTH (m)	TEMPERATURE (°C)	SALINITY (0/00)	DENSITY (SIGMA-T)	LIGHT TRANSMISSION (VOLTS# 0)
176	14.9722			2.977
178	14.8465			3.077
180	14.6713			3.170
182	14.5998			3.139
184	14.5852			3.100
186	14.5807			3.100
188	14.5707			3.083

DEPTH (m)	TEMPERATURE (°C)	SALINITY (0/00)	DENSITY (SIGMA-T)	LIGHT TRANSMISSION (VOLTS# 0)

CRUISE 4
STATION M-1

DEPTH (m)	TEMPERATURE (°C)	SALINITY (0/00)	DENSITY (SIGMA-T)	LIGHT TRANSMISSION (VOLTS# 0)
2.0	16.8795	30.4684	22.1520	1.190
4.0	16.9534	32.5613	23.6949	2.396
6.0	17.2390	34.1913	24.8424	2.672
8.0	17.3175	35.3755	25.7065	2.992
10.0	17.0290	35.4754	25.8502	2.972
12.0	16.8407	35.4725	25.8928	2.903
14.0	16.7022	35.4414	25.9024	2.832
16.0	16.6394	35.4194	25.9007	2.802
18.0	16.6181	35.4073	25.8967	2.781

CRUISE 4
STATION M-2

DEPTH (m)	TEMPERATURE (°C)	SALINITY (0/00)	DENSITY (SIGMA-T)	LIGHT TRANSMISSION (VOLTS# 0)
2.0	18.3840	31.0307	22.2146	1.116
4.0	18.4111	31.1571	22.3027	2.945
6.0	19.0210	33.2757	23.7233	2.477
8.0	19.3067	34.9697	24.9083	2.781
10.0	19.3985	35.5603	25.3232	2.953
12.0	19.4115	35.6078	25.3551	3.000
14.0	19.3781	35.6481	25.3937	3.006
16.0	19.3451	35.6650	25.4148	3.022
18.0	19.2613	35.6945	25.4584	3.024
20.0	19.1917	35.6958	25.4773	3.028
22.0	18.9499	35.6577	25.5110	3.019
24.0	18.5976	35.7898	25.6990	3.052
26.0	18.3753	35.6666	25.6631	3.044
28.0	18.0657	35.6257	25.7099	3.052
30.0	17.6854	35.6520	25.8231	3.068
32.0	17.5855	35.6115	25.8174	3.073
34.0	17.5057	35.6056	25.8324	3.085
36.0	17.5568	35.6746	25.8714	3.075
38.0	17.6810	35.7578	25.9032	3.081
40.0	17.6956	35.7859	25.9205	3.085
42.0	17.6139	35.8459	25.9852	3.085
44.0	17.5871	35.8061	25.9621	3.079
46.0	17.6321	35.8381	25.9750	3.060
48.0	17.7252	35.8706	25.9764	3.062
50.0	17.7820	35.9114	25.9929	3.065
52.0	17.8196	35.9409	26.0055	3.066
54.0	17.9554	36.0604	26.0611	3.016
56.0	17.9776	36.0709	26.0634	2.955
58.0	17.9842	36.0855	26.0726	2.945

CRUISE 4
STATION M-3

DEPTH (m)	TEMPERATURE (°C)	SALINITY (0/00)	DENSITY (SIGMA-T)	LIGHT TRANSMISSION (VOLTS# 0)
2.0	22.7388	29.9532	20.2800	0.371
4.0	22.7720	30.0519	20.3438	3.221
6.0	22.8026	30.0498	20.3337	2.994
8.0	22.7908	30.0474	20.3353	2.999
10.0	22.7585	30.0420	20.3403	3.000
12.0	22.7491	30.0265	20.3316	3.002
14.0	22.7272	30.0300	20.3402	2.998
16.0	22.6197	30.0269	20.3679	3.001
18.0	22.5916	30.0435	20.3880	2.996
20.0	22.5916	30.0406	20.3858	2.992
22.0	22.5955	30.0393	20.3838	2.995
24.0	22.5921	30.0341	20.3809	2.994
26.0	22.5942	30.0348	20.3808	2.991
28.0	22.6007	30.0593	20.3970	3.008
30.0	22.5304	30.0407	20.4029	3.018
32.0	22.0183	30.0943	20.5832	3.003
34.0	21.4685	30.0253	20.6815	2.968
36.0	20.9831	30.9141	21.4670	2.913
38.0	20.7132	34.6303	24.2875	2.885
40.0	20.5611	35.9388	25.2965	2.887
42.0	20.5164	36.0326	25.3780	2.871
44.0	20.2156	35.9877	25.4252	2.895
46.0	19.9127	35.9997	25.5147	2.991
48.0	19.5558	35.8721	25.5137	3.039
50.0	19.1638	35.8535	25.6016	3.061
52.0	19.1464	35.9084	25.6469	3.040
54.0	19.1448	35.9190	25.6551	3.024
56.0	19.1486	35.9258	25.6593	3.013
58.0	19.1434	35.9357	25.6680	3.001
60.0	19.1415	35.9244	25.6600	2.991
62.0	19.1431	35.9352	25.6677	2.998
64.0	19.1398	35.9323	25.6664	2.989
66.0	19.1379	35.9348	25.6687	2.984
68.0	19.1404	35.9429	25.6741	2.983
70.0	19.1481	35.9453	25.6739	2.977
72.0	19.1958	35.9676	25.6782	2.925
74.0	19.3156	36.0211	25.6869	2.946
76.0	19.3903	36.0462	25.6862	3.019
78.0	19.4117	36.0552	25.6873	3.032
80.0	19.5320	36.1129	25.6988	3.030
82.0	19.8403	36.2395	25.7117	3.049
84.0	19.9543	36.2860	25.7161	3.063

DEPTH (m)	TEMPERATURE (°C)	SALINITY (0/00)	DENSITY (SIGMA-T)	LIGHT TRANSMISSION (VOLTS# 0)
86.0	19.6783	36.3068	25.8043	3.008
88.0	18.8327	36.3865	26.0827	2.995
90.0	18.3582	36.4877	26.2787	3.138
92.0	18.1742	36.4246	26.2778	3.164
94.0	18.0700	36.4066	26.2904	3.113
96.0	17.9156	36.4113	26.3323	3.065
98.0	17.8809	36.3937	26.3278	3.038
100.0	17.8568	36.3981	26.3370	3.039
102.0	17.8293	36.3852	26.3342	3.043
104.0	17.7500	36.3687	26.3415	3.045
106.0	17.6991	36.3877	26.3682	3.044
108.0	17.5924	36.3535	26.3689	3.017
110.0	17.5649	36.3562	26.3777	3.057

DEPTH (m)	TEMPERATURE (°C)	SALINITY (0/00)	DENSITY (SIGMA-T)	LIGHT TRANSMISSION (VOLTS# 0)

CRUISE 4
STATION M-4

DEPTH (m)	TEMPERATURE (°C)	SALINITY (0/00)	DENSITY (SIGMA-T)	LIGHT TRANSMISSION (VOLTS# 0)
2.0	21.1187	35.2630	24.6443	-0.335
4.0	21.1377	35.3820	24.7276	3.134
6.0	21.1393	35.3891	24.7325	3.115
8.0	21.1406	35.3914	24.7338	3.121
10.0	21.1434	35.3937	24.7347	3.119
12.0	21.1432	35.3953	24.7360	3.118
14.0	21.1511	35.4128	24.7468	3.118
16.0	21.2433	35.4947	24.7821	3.118
18.0	21.3748	35.4962	24.7470	3.120
20.0	21.5092	35.5898	24.7791	3.119
22.0	21.8474	35.7247	24.7847	3.104
24.0	22.2463	35.9748	24.8571	3.099
26.0	22.5077	36.1694	24.9264	3.081
28.0	22.6220	36.2034	24.9188	3.133
30.0	22.7198	36.3701	25.0138	3.145
32.0	22.7115	36.4012	25.0391	3.179
34.0	22.6353	36.3846	25.0488	3.184
36.0	22.3577	36.3461	25.0997	3.161
38.0	21.9524	36.3606	25.2251	3.086
40.0	21.6591	36.2507	25.2262	3.051
42.0	21.4241	36.2656	25.3025	3.006
44.0	21.0788	36.2366	25.3763	2.994
46.0	20.6187	36.3061	25.5530	3.052
48.0	20.3883	36.1885	25.5281	3.070
50.0	20.2180	36.1030	25.5103	3.077
52.0	20.0489	36.0962	25.5502	3.103
54.0	19.9370	36.0980	25.5812	3.113
56.0	19.9451	36.1313	25.6038	3.124
58.0	19.9554	36.1116	25.5864	3.122
60.0	19.9598	36.1235	25.5941	3.120
62.0	19.9644	36.1260	25.5947	3.117
64.0	19.9834	36.1451	25.6038	3.124
66.0	20.0017	36.1541	25.6056	3.119
68.0	19.9945	36.1680	25.6179	3.104
70.0	19.9983	36.1785	25.6246	3.103
72.0	19.9997	36.1850	25.6291	3.115
74.0	20.0159	36.1977	25.6342	3.087
76.0	20.0408	36.2101	25.6369	3.084
78.0	20.0604	36.2237	25.6417	3.074
80.0	20.0500	36.2249	25.6454	3.067
82.0	19.9472	36.2372	25.6818	3.042
84.0	19.8318	36.2107	25.6926	3.004

DEPTH (m)	TEMPERATURE (°C)	SALINITY (0/00)	DENSITY (SIGMA-T)	LIGHT TRANSMISSION (VOLTS# 0)
86.0	19.7302	36.2071	25.7167	3.000
88.0	19.6615	36.2189	25.7435	3.009
90.0	19.3751	36.2291	25.8260	2.948
92.0	19.0530	36.3931	26.0312	2.949
94.0	18.7933	36.4163	26.1151	3.074
96.0	18.4083	36.5308	26.2980	3.115
98.0	18.2548	36.5202	26.3288	3.183
100.0	18.1655	36.4689	26.3130	3.194
102.0	18.0642	36.4511	26.3251	3.212
104.0	17.9869	36.4371	26.3338	3.216
106.0	17.7974	36.4534	26.3930	3.204
108.0	17.7454	36.3980	26.3645	3.237
110.0	17.7158	36.4099	26.3806	3.243
112.0	17.6469	36.4297	26.4124	3.251
114.0	17.5358	36.3948	26.4136	3.247
116.0	17.5005	36.4052	26.4300	3.249
118.0	17.4647	36.3762	26.4171	3.254
120.0	17.4422	36.3999	26.4402	3.257
122.0	17.3538	36.3686	26.4384	3.260
124.0	17.2734	36.3832	26.4688	3.264
126.0	17.2216	36.3687	26.4706	3.264
128.0	17.1378	36.3303	26.4621	3.263
130.0	17.0868	36.3227	26.4687	3.262
132.0	17.0918	36.3227	26.4675	3.259
134.0	17.0805	36.3219	26.4696	3.261
136.0	16.9958	36.3684	26.5247	3.263
138.0	16.8986	36.3011	26.4977	3.260
140.0	16.8399	36.2841	26.4990	3.257
142.0	16.7494	36.2903	26.5252	3.251
144.0	16.6973	36.2812	26.5308	3.252
146.0	16.6307	36.2702	26.5383	3.247
148.0	16.5822	36.2476	26.5329	3.235
150.0	16.5212	36.2387	26.5407	3.223
152.0	16.3706	36.2024	26.5488	3.194
154.0	16.2808	36.2236	26.5857	3.134
156.0	16.1912	36.1866	26.5789	3.168
158.0	16.1863	36.1994	26.5896	3.182
160.0	16.1522	36.1746	26.5790	3.183
162.0	16.0631	36.1698	26.5960	3.190
164.0	15.9940	36.1533	26.5997	3.190
166.0	15.9069	36.1599	26.6246	3.133
168.0	15.8597	36.1512	26.6289	3.094
170.0	15.6733	36.0989	26.6324	3.076
172.0	15.6288	36.1042	26.6464	3.107
174.0	15.5556	36.0730	26.6400	3.094

DEPTH (m)	TEMPERATURE (°C)	SALINITY (0/00)	DENSITY (SIGMA-T)	LIGHT TRANSMISSION (VOLTS# 0)

DEPTH (m)	TEMPERATURE (°C)	SALINITY (0/00)	DENSITY (SIGMA-T)	LIGHT TRANSMISSION (VOLTS# 0)
CRUISE 4 **STATION D-1**				
2.0	18.2717	35.6979	25.7127	2.769
4.0	18.2507	35.8765	25.8505	3.176
6.0	18.2241	35.8585	25.8438	3.170
8.0	18.2052	35.8627	25.8516	3.172
10.0	18.1753	35.8502	25.8498	3.171
12.0	18.1655	35.8516	25.8532	3.171
14.0	18.1573	35.8470	25.8519	3.175
16.0	18.0375	35.8554	25.8880	3.166

CRUISE 4
STATION D-2

DEPTH (m)	TEMPERATURE (°C)	SALINITY (0/00)	DENSITY (SIGMA-T)	LIGHT TRANSMISSION (VOLTS# 0)
2.0	20.5113	36.1354	25.4556	2.351
4.0	20.5251	36.1387	25.4543	3.219
6.0	20.5299	36.1370	25.4517	3.220
8.0	20.5158	36.1404	25.4581	3.217
10.0	20.4973	36.1390	25.4620	3.214
12.0	20.3948	36.1315	25.4840	3.217
14.0	20.2448	36.1266	25.5205	3.218
16.0	20.2507	36.1891	25.5653	3.226
18.0	20.2456	36.2066	25.5797	3.233
20.0	20.1994	36.2379	25.6152	3.225
22.0	19.9629	36.2293	25.6717	3.226
24.0	19.6771	36.2507	25.7630	3.220
26.0	19.3834	36.1973	25.8001	3.218
28.0	19.3328	36.2059	25.8197	3.215
30.0	19.3029	36.2130	25.8328	3.211
32.0	19.2904	36.2120	25.8352	3.216
34.0	19.2772	36.1957	25.8266	3.210
36.0	19.2239	36.1978	25.8419	3.216
38.0	19.0807	36.2292	25.9022	3.209
40.0	19.0156	36.2369	25.9247	3.205
42.0	18.9779	36.2266	25.9268	3.204
44.0	18.9091	36.2448	25.9580	3.203
46.0	18.8359	36.2570	25.9857	3.200
48.0	18.7953	36.2632	26.0007	3.198
50.0	18.7666	36.2643	26.0089	3.196
52.0	18.7434	36.2640	26.0146	3.196

CRUISE 4
STATION D-3

DEPTH (m)	TEMPERATURE (°C)	SALINITY (0/00)	DENSITY (SIGMA-T)	LIGHT TRANSMISSION (VOLTS# 0)
4.0	20.2939	36.0499	25.4559	3.194
6.0	20.1832	36.0448	25.4763	3.196
8.0	20.0700	36.0386	25.5019	3.191
10.0	20.0232	36.0268	25.5055	3.185
12.0	19.9396	36.0320	25.5316	3.188
14.0	19.8449	36.0252	25.5516	3.192
16.0	19.6143	36.0269	25.6134	3.197
18.0	19.4295	36.0683	25.6923	3.213
20.0	19.4050	36.0848	25.7111	3.220
22.0	19.5292	36.1555	25.7312	3.224
24.0	19.5665	36.1705	25.7325	3.220
26.0	19.5647	36.1829	25.7422	3.219
28.0	19.5083	36.1806	25.7552	3.218
30.0	19.3992	36.1545	25.7643	3.212
32.0	19.3196	36.1561	25.7862	3.210
34.0	19.2559	36.1402	25.7909	3.201
36.0	19.1383	36.1165	25.8036	3.196
38.0	18.9838	36.0698	25.8086	3.204
40.0	18.8419	36.0322	25.8171	3.210
42.0	18.8057	36.0170	25.8149	3.213
44.0	18.7568	36.0110	25.8230	3.209
46.0	18.7058	36.0112	25.8360	3.206
48.0	18.6733	36.0343	25.8615	3.199
50.0	18.6413	36.0919	25.9125	3.201
52.0	18.6274	36.1399	25.9517	3.188
54.0	18.6354	36.1596	25.9644	3.215
56.0	18.6517	36.1726	25.9699	3.221
58.0	18.6835	36.1938	25.9776	3.221
60.0	18.7017	36.2124	25.9868	3.216
62.0	18.6810	36.2132	25.9926	3.218
64.0	18.6656	36.2101	25.9943	3.213
66.0	18.6559	36.2119	25.9980	3.211
68.0	18.6548	36.2115	25.9980	3.210
70.0	18.6512	36.2093	25.9973	3.210
72.0	18.6514	36.2111	25.9986	3.211
74.0	18.6509	36.2104	25.9982	3.207
76.0	18.6516	36.2094	25.9973	3.210
78.0	18.6511	36.2099	25.9978	3.208
80.0	18.6528	36.2104	25.9978	3.206
82.0	18.6537	36.2114	25.9982	3.208

CRUISE 4
STATION D-4

DEPTH (m)	TEMPERATURE (°C)	SALINITY (0/00)	DENSITY (SIGMA-T)	LIGHT TRANSMISSION (VOLTS# 0)
4.0	20.5148	35.8958	25.2770	3.200
6.0	20.5175	35.8970	25.2773	3.202
8.0	20.5172	35.9004	25.2799	3.204
10.0	20.5171	35.9027	25.2816	3.205
12.0	20.5154	35.9070	25.2852	3.202
14.0	20.5055	35.9101	25.2902	3.204
16.0	20.4304	35.9103	25.3106	3.203
18.0	20.2701	35.9003	25.3460	3.201
20.0	20.1623	35.8951	25.3709	3.198
22.0	19.9358	35.8737	25.4151	3.198
24.0	19.9371	35.9253	25.4531	3.198
26.0	20.1399	36.0324	25.4788	3.196
28.0	19.9807	36.0532	25.5364	3.196
30.0	19.8735	36.0717	25.5785	3.202
32.0	19.7936	36.1254	25.6393	3.204
34.0	19.7227	36.1786	25.6975	3.183
36.0	19.6453	36.1932	25.7286	3.201
38.0	19.4902	36.1852	25.7634	3.204
40.0	19.3532	36.1663	25.7850	3.200
42.0	19.3278	36.1432	25.7744	3.194
44.0	19.3587	36.1657	25.7831	3.190
46.0	19.4334	36.1947	25.7853	3.193
48.0	19.4538	36.2124	25.7931	3.196
50.0	19.4514	36.2181	25.7979	3.195
52.0	19.4020	36.2127	25.8068	3.197
54.0	19.2674	36.2109	25.8404	3.196
56.0	19.1838	36.1914	25.8475	3.200
58.0	19.0838	36.1805	25.8653	3.200
60.0	18.9958	36.1667	25.8776	3.198
62.0	18.9641	36.1709	25.8889	3.199
64.0	18.9406	36.1541	25.8824	3.199
66.0	18.9208	36.1407	25.8775	3.199
68.0	18.8827	36.1414	25.8878	3.195
70.0	18.8512	36.1417	25.8961	3.195
72.0	18.8112	36.1372	25.9029	3.195
74.0	18.8084	36.1460	25.9103	3.198
76.0	18.8966	36.1853	25.9169	3.211
78.0	18.9347	36.2136	25.9282	3.216
80.0	18.9796	36.2396	25.9359	3.220
82.0	19.3442	36.3657	25.9355	3.236
84.0	19.2727	36.4021	25.9811	3.243
86.0	19.1717	36.4247	26.0240	3.248

DEPTH (m)	TEMPERATURE (°C)	SALINITY (0/00)	DENSITY (SIGMA-T)	LIGHT TRANSMISSION (VOLTS# 0)
90.0	19.0170	36.4356	26.0721	3.238
92.0	18.9607	36.4409	26.0905	3.238
94.0	18.9151	36.4433	26.1040	3.231
96.0	18.8914	36.4421	26.1091	3.233
98.0	18.8080	36.4370	26.1267	3.228
100.0	18.7424	36.4408	26.1464	3.226
102.0	18.7150	36.4403	26.1529	3.223
104.0	18.6303	36.4565	26.1865	3.221
106.0	18.5890	36.4548	26.1958	3.247
108.0	18.5523	36.4518	26.2029	3.257
110.0	18.4538	36.4590	26.2332	3.259
112.0	18.2448	36.4406	26.2720	3.262
114.0	18.0870	36.4551	26.3223	3.261
116.0	17.9919	36.4328	26.3294	3.255
118.0	17.9295	36.4319	26.3442	3.252
120.0	17.7690	36.4249	26.3787	3.249
122.0	17.6111	36.4051	26.4028	3.234
124.0	17.5379	36.3827	26.4040	3.220
126.0	17.4106	36.3633	26.4206	3.202
128.0	17.2418	36.3188	26.4284	3.185
130.0	17.0945	36.3600	26.4947	3.161
132.0	16.9136	36.3154	26.5048	3.129
134.0	16.8777	36.2973	26.4999	3.082
136.0	16.8698	36.2889	26.4954	3.076
138.0	16.8694	36.2738	26.4843	3.075
140.0	16.8724	36.2793	26.4877	3.075
142.0	16.8636	36.2700	26.4829	3.072
144.0	16.8236	36.2702	26.4926	3.068
146.0	16.7700	36.2729	26.5073	3.069
148.0	16.7306	36.2599	26.5070	3.074
150.0	16.7015	36.2518	26.5078	3.076
152.0	16.6192	36.2641	26.5364	3.083
154.0	16.5370	36.2345	26.5337	3.091
156.0	16.5179	36.2372	26.5403	3.100
158.0	16.5103	36.2294	26.5362	3.102
160.0	16.4971	36.2218	26.5336	3.101
162.0	16.4686	36.2383	26.5527	3.105
164.0	16.4120	36.2059	26.5418	3.096
166.0	16.4021	36.2142	26.5503	3.108
168.0	16.3616	36.2150	26.5604	3.111
170.0	16.3388	36.2104	26.5623	3.114
172.0	16.3194	36.2013	26.5600	3.114
174.0	16.2896	36.1981	26.5645	3.112
176.0	16.2789	36.1934	26.5635	3.113
178.0	16.2774	36.1861	26.5584	3.119

DEPTH (m)	TEMPERATURE (°C)	SALINITY (0/00)	DENSITY (SIGMA-T)	LIGHT TRANSMISSION (VOLTS# 0)
180.0	16.2790	36.1859	26.5578	3.117
182.0	16.2782	36.1847	26.5572	3.112
184.0	16.2803	36.1828	26.5553	3.111
186.0	16.2779	36.1829	26.5559	3.113
188.0	16.2732	36.1837	26.5576	3.113
190.0	16.2652	36.1815	26.5579	3.115
192.0	16.2496	36.1804	26.5607	3.118
194.0	16.2294	36.1788	26.5641	3.127
196.0	16.2022	36.1788	26.5705	3.134
198.0	16.1627	36.1790	26.5798	3.133
200.0	16.1535	36.1716	26.5764	3.138
202.0	16.1466	36.1759	26.5812	3.139
204.0	16.0761	36.1772	26.5985	3.143
208.0	15.9535	36.1777	26.6272	3.153
210.0	15.7149	36.1932	26.6935	3.153
212.0	15.2989	36.1133	26.7278	3.140
214.0	14.9482	36.0778	26.7792	3.149
216.0	14.5645	36.0221	26.8216	3.154
218.0	14.0203	36.0086	26.9285	3.160
220.0	13.5387	35.9779	27.0063	3.163
222.0	13.2849	35.8704	26.9782	3.165

DEPTH (m)	TEMPERATURE (°C)	SALINITY (0/00)	DENSITY (SIGMA-T)	LIGHT TRANSMISSION (VOLTS# 0)

CRUISE 4
STATION S-1

2.0	14.5979	31.6773	23.5578	1.148
4.0	14.5869	31.6743	23.5567	1.039
6.0	15.2030	32.2126	23.8284	1.073
8.0	15.6997	33.0460	24.3425	1.116
10.0	15.9524	33.5908	24.6930	1.179
12.0	16.3013	34.1705	25.0466	1.136
14.0	16.5012	34.5926	25.3156	1.119
16.0	16.5073	34.6365	25.3470	1.096

CRUISE 4
STATION S-2

DEPTH (m)	TEMPERATURE (°C)	SALINITY (0/00)	DENSITY (SIGMA-T)	LIGHT TRANSMISSION (VOLTS# 0)
2.0	18.9943	35.9037	25.6944	1.015
4.0	18.8018	35.9022	25.7306	1.210
6.0	18.6927	35.8964	25.7540	1.123
8.0	18.6344	35.8646	25.7452	1.153
10.0	18.6039	35.8580	25.7480	1.161
12.0	18.5872	35.8631	25.7560	1.135
14.0	18.5688	35.8530	25.7531	1.130
16.0	18.5661	35.8537	25.7544	1.149
18.0	18.5504	35.8504	25.7559	1.170
20.0	18.5466	35.8483	25.7553	1.153
22.0	18.5476	35.8538	25.7591	1.137

CRUISE 4
STATION S-3

DEPTH (m)	TEMPERATURE (°C)	SALINITY (0/00)	DENSITY (SIGMA-T)	LIGHT TRANSMISSION (VOLTS# 0)
2.0	19.6650	35.7490	25.4170	1.480
4.0	19.3995	35.7448	25.4600	1.317
6.0	19.1759	35.7594	25.5285	1.225
8.0	19.0974	35.7544	25.5451	1.221
10.0	19.0699	35.7383	25.5402	1.187
12.0	19.0465	35.7383	25.5462	1.195
14.0	19.0317	35.7290	25.5431	1.216
16.0	19.0205	35.7280	25.5452	1.184
18.0	19.0057	35.7291	25.5498	1.195
20.0	18.9870	35.7263	25.5526	1.200
22.0	18.9683	35.7243	25.5559	1.236
24.0	18.9558	35.7241	25.5589	1.199
26.0	18.9472	35.7262	25.5627	1.215
28.0	18.9353	35.7266	25.5660	1.246
30.0	18.9190	35.7307	25.5732	1.207
32.0	18.9346	35.7494	25.5831	1.214
34.0	18.9775	35.7694	25.5869	1.1[illegible]
36.0	18.9952	35.7787	25.5894	1.140
38.0	19.0071	35.7871	25.5926	1.130
40.0	19.0160	35.7958	25.5967	1.105

DEPTH (m)	TEMPERATURE (°C)	SALINITY (0/00)	DENSITY (SIGMA-T)	LIGHT TRANSMISSION (VOLTS# 0)

CRUISE 4
STATION S-5

DEPTH (m)	TEMPERATURE (°C)	SALINITY (0/00)	DENSITY (SIGMA-T)	LIGHT TRANSMISSION (VOLTS# 0)
2.0	21.7684	34.6821	24.0359	2.967
4.0	21.7750	34.7420	24.0788	2.981
6.0	21.7673	36.0175	25.0235	3.107
8.0	21.8041	36.2661	25.1970	3.150
10.0	21.8097	36.2612	25.1918	3.146
12.0	21.8098	36.2629	25.1931	3.150
14.0	21.8145	36.2681	25.1955	3.149
16.0	21.8207	36.2729	25.1974	3.152
18.0	21.8272	36.2778	25.1992	3.154
20.0	21.8331	36.2811	25.2000	3.155
22.0	21.8410	36.2859	25.2012	3.155
24.0	21.8495	36.2914	25.2030	3.157
26.0	21.8740	36.3142	25.2129	3.158
28.0	21.9037	36.3278	25.2146	3.158
30.0	21.9787	36.4059	25.2513	3.155
32.0	22.0229	36.4611	25.2796	3.193
34.0	22.0291	36.4722	25.2861	3.193
36.0	22.0404	36.4909	25.2967	3.198
38.0	22.0432	36.5105	25.3104	3.197
40.0	21.9945	36.5102	25.3239	3.192
42.0	21.9765	36.5120	25.3303	3.190
44.0	21.8610	36.4826	25.3411	3.177
46.0	21.6816	36.4440	25.3628	3.193
48.0	21.4973	36.4323	25.4055	3.184
50.0	21.3215	36.3763	25.4128	3.163
52.0	21.1840	36.3972	25.4662	3.144
54.0	21.1444	36.3605	25.4499	3.120
56.0	21.1178	36.3841	25.4748	3.187
58.0	20.8515	36.3484	25.5212	3.184
60.0	20.6127	36.3565	25.5920	3.203
62.0	20.5662	36.3520	25.6013	3.215
64.0	20.5336	36.2875	25.5623	3.217
66.0	20.5072	36.2904	25.5716	3.219
68.0	20.4965	36.2804	25.5670	3.222
70.0	20.4770	36.2478	25.5481	3.223
72.0	20.4060	36.2280	25.5526	3.224
74.0	20.3702	36.2197	25.5560	3.223
76.0	20.3525	36.2214	25.5620	3.231
78.0	20.3472	36.2089	25.5542	3.230
80.0	20.3573	36.2185	25.5585	3.235
82.0	20.3661	36.2273	25.5628	3.241
84.0	20.3617	36.2349	25.5696	3.243

DEPTH (m)	TEMPERATURE (°C)	SALINITY (0/00)	DENSITY (SIGMA-T)	LIGHT TRANSMISSION (VOLTS# 0)
86.0	20.3494	36.2414	25.5777	3.244
88.0	20.3357	36.2525	25.5896	3.245
90.0	20.3607	36.2853	25.6072	3.244
92.0	20.3844	36.3046	25.6151	3.247
94.0	20.3767	36.3261	25.6331	3.248
96.0	20.3712	36.3256	25.6343	3.244
98.0	20.3156	36.3219	25.6464	3.248
100.0	20.1583	36.3519	25.7108	3.250
102.0	19.9773	36.3510	25.7583	3.248
104.0	19.9919	36.4459	25.8248	3.253
106.0	20.1535	36.5519	25.8604	3.256
108.0	20.0363	36.5665	25.9024	3.260
110.0	20.2270	36.7691	26.0018	3.265
112.0	20.3376	36.8014	25.9960	3.274
114.0	20.1180	36.7908	26.0471	3.276
116.0	20.1243	36.8004	26.0526	3.277
118.0	20.0977	36.7912	26.0528	3.277
120.0	19.9892	36.7767	26.0710	3.276
122.0	19.8693	36.7631	26.0927	3.278
124.0	19.6977	36.7513	26.1293	3.278
126.0	19.3728	36.6910	26.1697	3.278
128.0	19.2521	36.6943	26.2035	3.278
130.0	19.1611	36.6793	26.2160	3.278
132.0	19.0818	36.7281	26.2728	3.277
134.0	18.8738	36.6405	26.2613	3.278
136.0	18.6182	36.5968	26.2940	3.278
138.0	18.5514	36.6073	26.3188	3.277
140.0	18.4841	36.5521	26.2947	3.277
142.0	18.1091	36.4408	26.3061	3.277
144.0	17.8528	36.4853	26.4030	3.275
146.0	17.6302	36.4023	26.3961	3.276
148.0	17.6073	36.3933	26.3949	3.276
150.0	17.5822	36.3621	26.3778	3.276
152.0	17.5680	36.3790	26.3939	3.276
154.0	17.5128	36.3660	26.3977	3.276
156.0	17.3365	36.3361	26.4183	3.276
158.0	17.2448	36.3683	26.4646	3.276
160.0	17.1758	36.3379	26.4586	3.270
162.0	16.9250	36.3404	26.5207	3.275
164.0	16.7860	36.2831	26.5111	3.276
166.0	16.6001	36.2522	26.5321	3.276
168.0	16.4391	36.2319	26.5548	3.276
170.0	16.3673	36.2347	26.5738	3.276
172.0	16.2866	36.2256	26.5858	3.276
174.0	16.2884	36.2281	26.5873	3.275

DEPTH (m)	TEMPERATURE (°C)	SALINITY (0/00)	DENSITY (SIGMA-T)	LIGHT TRANSMISSION (VOLTS# 0)
176.0	16.1156	36.1450	26.5653	3.276
178.0	15.7716	36.1015	26.6120	3.275
180.0	15.6522	36.0999	26.6380	3.275
182.0	15.4896	36.0724	26.6543	3.274
184.0	15.3242	36.0484	26.6735	3.275
186.0	15.2659	36.0748	26.7064	3.276
188.0	15.1838	36.0423	26.7004	3.276
190.0	15.0511	36.0168	26.7108	3.275
192.0	14.9813	36.0387	26.7427	3.275
194.0	14.9036	36.0056	26.7351	3.274
196.0	14.8667	35.9915	26.7326	3.274
198.0	14.7658	35.9797	26.7458	3.273
200.0	14.6421	35.9371	26.7409	3.270
202.0	14.5591	35.9223	26.7479	3.267
204.0	14.4796	35.9014	26.7495	3.255
206.0	14.4394	35.9032	26.7595	3.253
208.0	14.4098	35.8921	26.7576	3.251
210.0	14.3436	35.8897	26.7701	3.254
212.0	14.2446	35.8726	26.7784	3.257
214.0	14.0928	35.8755	26.8131	3.249
216.0	14.0530	35.8646	26.8134	3.213
218.0	14.0453	35.8414	26.7975	3.193
220.0	14.0410	35.8412	26.7983	3.175
222.0	14.0336	35.8344	26.7948	3.168
224.0	14.0052	35.8353	26.8014	3.172
226.0	13.9420	35.8136	26.7985	3.189
228.0	13.8628	35.8025	26.8069	3.194
230.0	13.7961	35.8015	26.8201	3.206
232.0	13.7778	35.7986	26.8218	3.198
234.0	13.7173	35.8217	26.8519	3.192
236.0	13.7025	35.7866	26.8286	3.188
238.0	13.6192	35.7751	26.8373	3.201
240.0	13.5295	35.7589	26.8437	3.212
242.0	13.4830	35.7541	26.8498	3.189
244.0	13.4659	35.7459	26.8472	3.181
246.0	13.4410	35.7393	26.8473	3.174

CRUISE 4
STATION S-6

DEPTH (m)	TEMPERATURE (°C)	SALINITY (0/00)	DENSITY (SIGMA-T)	LIGHT TRANSMISSION (VOLTS# 0)
2.0	20.3325	34.1100	23.9979	1.832
4.0	20.4972	34.3085	24.1061	2.876
6.0	20.7626	34.8874	24.4636	2.993
8.0	20.7821	35.3459	24.7976	3.048
10.0	20.6562	35.6529	25.0590	3.082
12.0	20.5962	35.9464	25.2927	3.100
14.0	20.5317	36.0981	25.4225	3.111
16.0	20.5949	36.1701	25.4587	3.112
18.0	20.4248	36.1591	25.4964	3.120
20.0	20.3645	36.1819	25.5295	3.108
22.0	20.3250	36.2011	25.5543	3.088
24.0	20.2908	36.2146	25.5735	3.127
26.0	20.2808	36.2147	25.5762	3.139
28.0	20.2835	36.2208	25.5801	3.150
30.0	20.2846	36.2197	25.5790	3.152
32.0	20.2858	36.2201	25.5790	3.152
34.0	20.2880	36.2200	25.5783	3.154
36.0	20.2913	36.2237	25.5801	3.151
38.0	20.2949	36.2251	25.5802	3.165
40.0	20.2977	36.2279	25.5815	3.172
42.0	20.3012	36.2295	25.5817	3.172
44.0	20.3035	36.2303	25.5817	3.177
46.0	20.3049	36.2315	25.5823	3.178
48.0	20.3035	36.2337	25.5842	3.173
50.0	20.3017	36.2330	25.5842	3.178
52.0	20.3221	36.2428	25.5860	3.180
54.0	20.3369	36.2520	25.5889	3.188
56.0	20.3427	36.2482	25.5845	3.186
58.0	20.3427	36.2631	25.5955	3.184
60.0	20.3126	36.2555	25.5980	3.195
62.0	20.3061	36.2801	25.6180	3.207
64.0	20.2934	36.2926	25.6306	3.225
66.0	20.2101	36.3095	25.6655	3.235
68.0	20.1295	36.3158	25.6917	3.230
70.0	20.0340	36.3007	25.7059	3.226

DEPTH (m)	TEMPERATURE (°C)	SALINITY (0/00)	DENSITY (SIGMA-T)	LIGHT TRANSMISSION (VOLTS# 0)

CRUISE 4
STATION S-7

DEPTH (m)	TEMPERATURE (°C)	SALINITY (0/00)	DENSITY (SIGMA-T)	LIGHT TRANSMISSION (VOLTS# 0)
2.0	21.1274	35.4163	24.7526	2.975
4.0	21.2279	35.7695	24.9896	3.145
6.0	21.2362	35.9075	25.0895	3.116
8.0	21.0460	36.1753	25.3398	3.063
10.0	20.8726	36.2238	25.4232	3.024
12.0	20.7805	36.2267	25.4504	3.025
14.0	20.7223	36.2242	25.4643	3.008
16.0	20.6398	36.2415	25.4995	3.021
18.0	20.5871	36.2415	25.5137	3.024
20.0	20.5588	36.2272	25.5108	3.045
22.0	20.5343	36.2300	25.5195	3.055
24.0	20.5057	36.2339	25.5301	3.061
26.0	20.4924	36.2525	25.5475	3.097
28.0	20.5309	36.2644	25.5458	3.135
30.0	20.5596	36.2761	25.5468	3.144
32.0	20.5799	36.2875	25.5498	3.155
34.0	20.5959	36.2942	25.5504	3.160
36.0	20.6046	36.3007	25.5529	3.167
38.0	20.6041	36.3045	25.5558	3.176
40.0	20.5925	36.3117	25.5643	3.184
42.0	20.5587	36.3155	25.5763	3.196
44.0	20.5159	36.3107	25.5842	3.218
46.0	20.3906	36.2711	25.5886	3.218
48.0	20.3368	36.2678	25.6006	3.205
50.0	20.3197	36.2541	25.5950	3.197
52.0	20.3075	36.2517	25.5965	3.195
54.0	20.2987	36.2483	25.5964	3.192
56.0	20.2864	36.2474	25.5990	3.188
58.0	20.2771	36.2453	25.6000	3.179
60.0	20.2663	36.2510	25.6071	3.182
62.0	20.2502	36.2627	25.6201	3.196
64.0	20.2591	36.2782	25.6291	3.213
66.0	20.2599	36.2924	25.6395	3.225
68.0	20.2355	36.2873	25.6422	3.226
70.0	20.2061	36.3008	25.6601	3.227
72.0	20.1771	36.3364	25.6942	3.232
74.0	20.2048	36.3726	25.7137	3.236
76.0	20.2190	36.4273	25.7505	3.239
78.0	20.1877	36.4502	25.7758	3.240
80.0	20.0639	36.4604	25.8164	3.243
82.0	19.9793	36.4515	25.8323	3.244
84.0	19.9467	36.4592	25.8467	3.243

DEPTH (m)	TEMPERATURE (°C)	SALINITY (0/00)	.DENSITY (SIGMA-T)	LIGHT TRANSMISSION (VOLTS# 0)
86.0	19.9417	36.4538	25.8439	3.239
88.0	19.8909	36.4687	25.8685	3.241
90.0	19.8873	36.4784	25.8766	3.241
92.0	19.6877	36.5012	25.9463	3.213
94.0	19.4679	36.4925	25.9974	3.122
96.0	19.3560	36.4842	26.0205	3.153
98.0	19.2909	36.4805	26.0346	3.157
100.0	19.2008	36.4898	26.0649	3.143
102.0	19.0580	36.4913	26.1029	3.136
104.0	18.9893	36.4894	26.1192	3.148
106.0	18.8651	36.4944	26.1549	3.138
108.0	18.6392	36.4592	26.1863	3.137
110.0	18.2186	36.5463	26.3574	3.172
112.0	17.9204	36.4352	26.3489	3.193
114.0	17.8603	36.4469	26.3725	3.223
116.0	17.8362	36.4230	26.3607	3.227
118.0	17.7221	36.4251	26.3904	3.227
120.0	17.6433	36.4125	26.4004	3.232
122.0	17.5808	36.3775	26.3897	3.225
124.0	17.5457	36.3831	26.4024	3.216
126.0	17.3672	36.3184	26.3977	3.180

CRUISE 4
STATION S-8

DEPTH (m)	TEMPERATURE (°C)	SALINITY (0/00)	DENSITY (SIGMA-T)	LIGHT TRANSMISSION (VOLTS# 0)
2.0	18.1210	32.7231	23.5370	0.545
4.0	18.1073	35.1738	25.3632	3.143
6.0	18.0953	35.1592	25.3553	3.164
8.0	17.9194	35.2397	25.4586	3.168
10.0	17.6177	35.3909	25.6452	3.179
12.0	17.5359	35.4558	25.7135	3.183
14.0	17.4983	35.5008	25.7561	3.185
16.0	17.4071	35.5831	25.8396	3.189
18.0	17.4376	35.6880	25.9104	3.186
20.0	17.4954	35.7410	25.9358	3.167
22.0	17.5217	35.7534	25.9388	3.119
24.0	17.5446	35.7799	25.9529	3.120
26.0	17.5835	35.8121	25.9674	3.099
28.0	17.6302	35.8633	25.9942	2.935
30.0	17.6561	35.8965	26.0127	2.647
32.0	17.6574	35.9083	26.0210	2.515
34.0	17.6575	35.9110	26.0231	2.422
36.0	17.6592	35.9148	26.0256	2.356

CRUISE 4
STATION S-9

DEPTH (m)	TEMPERATURE (°C)	SALINITY (0/00)	DENSITY (SIGMA-T)	LIGHT TRANSMISSION (VOLTS# 0)
2.0	19.4598	34.8746	24.7945	0.440
4.0	19.5605	35.0747	24.9207	3.430
6.0	19.5623	35.0661	24.9138	3.151
8.0	19.5673	35.0724	24.9172	3.157
10.0	19.5901	35.1092	24.9386	3.156
12.0	19.6009	35.1732	24.9833	3.156
14.0	19.6054	35.3530	25.1155	3.157
16.0	19.5073	35.6636	25.3716	3.163
18.0	19.3639	35.8141	25.5206	3.157
20.0	19.3372	35.9017	25.5926	3.156
22.0	19.1993	35.8988	25.6262	3.144
24.0	19.0791	35.8825	25.6450	3.140
26.0	18.5242	35.7748	25.7202	3.054

DEPTH (m)	TEMPERATURE (°C)	SALINITY (0/00)	DENSITY (SIGMA-T)	LIGHT TRANSMISSION (VOLTS# 0)

CRUISE 4
SITE A

DEPTH (m)	TEMPERATURE (°C)	SALINITY (0/00)	DENSITY (SIGMA-T)	LIGHT TRANSMISSION (VOLTS# 0)
2.0	19.0156	32.2694	22.9786	1.372
4.0	19.0129	35.8509	25.6385	3.200
6.0	19.0122	35.8311	25.6239	3.188
8.0	19.0086	35.8459	25.6359	3.189
10.0	19.0081	35.8757	25.6582	3.190
12.0	18.9875	35.9191	25.6957	3.175
14.0	18.9058	35.9869	25.7670	3.204
16.0	18.8796	35.9995	25.7831	3.189
18.0	18.8024	36.0329	25.8276	3.204
20.0	18.6384	36.1118	25.9280	3.211
22.0	18.4504	36.1601	26.0116	3.192
24.0	18.4233	36.1205	25.9889	3.154
26.0	18.4167	36.1268	25.9952	3.137
28.0	18.4111	36.1138	25.9870	3.139

CRUISE 4
SITE B

DEPTH (m)	TEMPERATURE (°C)	SALINITY (0/00)	DENSITY (SIGMA-T)	LIGHT TRANSMISSION (VOLTS# 0)
2.0	21.2484	30.5641	21.1378	2.428
4.0	21.1922	34.6573	24.1777	2.984
6.0	21.1578	35.7645	25.0052	3.137
8.0	21.0884	35.7701	25.0283	3.134
10.0	21.0297	35.7604	25.0372	3.139
12.0	20.9948	35.7555	25.0430	3.144
14.0	20.8672	35.7454	25.0703	3.151
16.0	20.7843	35.7393	25.0884	3.163
18.0	20.7451	35.7563	25.1116	3.167
20.0	20.7303	35.7963	25.1452	3.164
22.0	20.7192	35.8648	25.1990	3.156
24.0	20.7012	35.9199	25.2446	3.156
26.0	20.7531	36.0180	25.3032	3.153
28.0	20.7718	36.0782	25.3427	3.154
30.0	20.7683	36.1071	25.3652	3.148
32.0	20.7575	36.1353	25.3889	3.133
34.0	20.7473	36.1579	25.4084	3.130
36.0	20.7349	36.1757	25.4250	3.133
38.0	20.7192	36.1848	25.4360	3.129
40.0	20.7014	36.1873	25.4426	3.134
42.0	20.6665	36.1874	25.4522	3.135
44.0	20.6260	36.1881	25.4637	3.149
46.0	20.5565	36.1806	25.4769	3.157
48.0	20.4325	36.1769	25.5076	3.176
50.0	20.2199	36.2016	25.5828	3.201
52.0	20.0850	36.2218	25.6337	3.219
54.0	19.9679	36.2270	25.6687	3.228
56.0	19.8338	36.2346	25.7099	3.235
58.0	19.7671	36.2277	25.7224	3.240
60.0	19.7361	36.2328	25.7342	3.242

DEPTH (m)	TEMPERATURE (°C)	SALINITY (0/00)	DENSITY (SIGMA-T)	LIGHT TRANSMISSION (VOLTS# 0)

CRUISE 4
SITE C

DEPTH (m)	TEMPERATURE (°C)	SALINITY (0/00)	DENSITY (SIGMA-T)	LIGHT TRANSMISSION (VOLTS# 0)
2.0	21.4127	35.5566	24.7813	1.109
4.0	21.4021	35.5008	24.7429	2.696
6.0	21.3929	35.5479	24.7803	3.145
8.0	21.3832	35.6049	24.8251	3.215
10.0	21.3835	35.6745	24.8765	3.209
12.0	21.3820	35.7197	24.9103	3.219
14.0	21.3804	35.7641	24.9436	3.219
16.0	21.3734	35.7890	24.9639	3.219
18.0	21.3440	35.8241	24.9980	3.219
20.0	21.2913	35.8545	25.0351	3.218
22.0	21.1737	35.8737	25.0816	3.221
24.0	21.1105	35.9412	25.1489	3.222
26.0	21.1121	36.0249	25.2104	3.225
28.0	21.1183	36.1145	25.2750	3.229
30.0	21.1032	36.1711	25.3211	3.228
32.0	21.0566	36.1787	25.3395	3.228
34.0	20.9614	36.1819	25.3679	3.221
36.0	20.9317	36.1958	25.3864	3.218
38.0	20.9229	36.2162	25.4038	3.215
40.0	20.8349	36.2237	25.4334	3.214
42.0	20.7253	36.2198	25.4603	3.213
44.0	20.6552	36.2415	25.4953	3.209
46.0	20.6173	36.2447	25.5080	3.205
48.0	20.5933	36.2610	25.5265	3.205
50.0	20.5847	36.2817	25.5441	3.204
52.0	20.5797	36.2848	25.5478	3.203
54.0	20.5775	36.3037	25.5624	3.200
56.0	20.5779	36.3003	25.5598	3.200
58.0	20.5519	36.3109	25.5747	3.199
60.0	20.5316	36.3152	25.5834	3.199
62.0	20.4998	36.3118	25.5894	3.204
64.0	20.4756	36.3173	25.6000	3.215
66.0	20.4319	36.3110	25.6071	3.229
68.0	20.3630	36.3210	25.6330	3.235
70.0	20.1576	36.3030	25.6746	3.239
72.0	19.9946	36.2847	25.7045	3.239
74.0	19.9871	36.2859	25.7073	3.239
76.0	20.0079	36.2926	25.7068	3.235
78.0	20.0177	36.3061	25.7142	3.235
80.0	20.0288	36.3126	25.7161	3.232
82.0	20.0209	36.3169	25.7214	3.230
84.0	20.0171	36.3200	25.7247	3.226

DEPTH (m)	TEMPERATURE (°C)	SALINITY (0/00)	DENSITY (SIGMA-T)	LIGHT TRANSMISSION (VOLTS# 0)
86.0	19.9736	36.3196	25.7359	3.226
88.0	19.9403	36.3152	25.7415	3.230
90.0	19.9139	36.3280	25.7580	3.233
92.0	19.8906	36.3198	25.7581	3.232
94.0	19.8053	36.3368	25.7932	3.234
96.0	19.7583	36.3491	25.8147	3.234
98.0	19.7502	36.3409	25.8108	3.236
100.0	19.6850	36.3725	25.8514	3.238
102.0	19.5409	36.4094	25.9166	3.241
104.0	19.4206	36.4750	25.9968	3.255
106.0	19.2407	36.4747	26.0433	3.260
108.0	19.0547	36.5066	26.1151	3.264
110.0	18.8761	36.5425	26.1877	3.266
112.0	18.7079	36.5175	26.2121	3.266
114.0	18.4619	36.5114	26.2701	3.265
116.0	18.4242	36.4573	26.2393	3.265
118.0	18.3758	36.4695	26.2606	3.265
120.0	18.2913	36.4676	26.2805	3.265
122.0	18.2021	36.4776	26.3103	3.265
124.0	18.0997	36.4847	26.3411	3.265
126.0	17.9258	36.4805	26.3814	3.265
128.0	17.8245	36.4575	26.3893	3.263
130.0	17.7751	36.4385	26.3873	3.262
132.0	17.7792	36.4380	26.3860	3.263
134.0	17.7633	36.4492	26.3982	3.265
136.0	17.6855	36.4470	26.4158	3.266
138.0	17.6641	36.4165	26.3983	3.267
140.0	17.6679	36.4292	26.4068	3.269
142.0	17.6103	36.4258	26.4184	3.270
144.0	17.5304	36.4220	26.4351	3.270
146.0	17.3638	36.4152	26.4707	3.268
148.0	17.3580	36.3890	26.4526	3.269
150.0	17.3442	36.3996	26.4638	3.269
152.0	17.2909	36.3986	26.4761	3.270
154.0	17.2452	36.3981	26.4868	3.270
156.0	17.1049	36.3579	26.4906	3.269
158.0	17.0374	36.3614	26.5094	3.269
160.0	16.9298	36.3185	26.5032	3.269
162.0	16.8286	36.3278	26.5343	3.268
164.0	16.6671	36.3140	26.5624	3.265
166.0	16.5559	36.2858	26.5676	3.265
168.0	16.4802	36.2476	26.5569	3.264
170.0	16.3862	36.2500	26.5807	3.263
172.0	16.2586	36.2323	26.5973	3.264
174.0	16.1893	36.2015	26.5904	3.264

DEPTH (m)	TEMPERATURE (°C)	SALINITY (0/00)	DENSITY (SIGMA-T)	LIGHT TRANSMISSION (VOLTS# 0)
176.0	16.1448	36.1816	26.5859	3.265
178.0	16.0331	36.2285	26.6468	3.263
180.0	15.9264	36.1563	26.6175	3.262
182.0	15.8679	36.1808	26.6492	3.262
184.0	15.8124	36.1540	26.6419	3.263
186.0	15.7457	36.1436	26.6493	3.263
188.0	15.6829	36.1167	26.6436	3.263
190.0	15.5910	36.1012	26.6528	3.262
192.0	15.5154	36.0845	26.6575	3.262
194.0	15.4843	36.0789	26.6603	3.261
196.0	15.3904	36.0674	26.6729	3.262
198.0	15.3278	36.0786	26.6954	3.263
200.0	15.2643	36.0632	26.6981	3.263
202.0	15.1396	36.0327	26.7030	3.262
204.0	15.0399	36.0122	26.7098	3.263
206.0	14.9557	35.9932	26.7142	3.262
208.0	14.8875	36.0146	26.7453	3.264
210.0	14.8202	35.9990	26.7484	3.264
212.0	14.7295	35.9923	26.7633	3.264
214.0	14.6793	35.9645	26.7535	3.264
216.0	14.6380	35.9663	26.7638	3.264
218.0	14.5970	35.9461	26.7576	3.265
220.0	14.4989	35.9213	26.7603	3.264
222.0	14.4362	35.9331	26.7826	3.265
224.0	14.3804	35.9051	26.7737	3.264
226.0	14.3494	35.9011	26.7774	3.264
228.0	14.3181	35.8897	26.7755	3.263
230.0	14.2414	35.8944	26.7955	3.264
232.0	14.1736	35.8646	26.7876	3.264
234.0	14.1045	35.8900	26.8215	3.265
236.0	13.9475	35.8432	26.8197	3.264
238.0	13.8987	35.8354	26.8240	3.263
240.0	13.8963	35.8307	26.8210	3.263
242.0	13.8194	35.8285	26.8356	3.263
244.0	13.6638	35.8086	26.8531	3.263
246.0	13.5506	35.7923	26.8645	3.262
248.0	13.4718	35.7803	26.8718	3.261
250.0	13.4340	35.7749	26.8755	3.262
252.0	13.4216	35.7625	26.8687	3.262
254.0	13.4050	35.7449	26.8589	3.262
256.0	13.3553	35.7695	26.8876	3.263
258.0	13.3216	35.7341	26.8680	3.263
260.0	13.3008	35.7258	26.8660	3.263
262.0	13.2774	35.7306	26.8744	3.263
264.0	13.1903	35.7134	26.8792	3.262

DEPTH (m)	TEMPERATURE (°C)	SALINITY (0/00)	DENSITY (SIGMA-T)	LIGHT TRANSMISSION (VOLTS# 0)
266.0	13.1067	35.7134	26.8963	3.262
270.0	12.8703	35.6754	26.9155	3.262
272.0	12.8403	35.6735	26.9200	3.262
274.0	12.7961	35.6564	26.9160	3.261
276.0	12.7027	35.6472	26.9278	3.260
278.0	12.5818	35.6285	26.9376	3.261
280.0	12.4529	35.6209	26.9574	3.260
282.0	12.3963	35.6459	26.9874	3.261
284.0	12.3129	35.5726	26.9484	3.260
286.0	12.2529	35.5819	26.9671	3.260
288.0	12.2132	35.5637	26.9611	3.260
290.0	12.1677	35.5808	26.9828	3.260
292.0	12.1264	35.5456	26.9643	3.260
294.0	12.0993	35.5679	26.9864	3.259
296.0	12.0546	35.5233	26.9614	3.259
298.0	12.0286	35.5244	26.9672	3.258
300.0	11.9848	35.5089	26.9639	3.259
302.0	11.9466	35.5116	26.9733	3.254
304.0	11.9292	35.5123	26.9771	3.259
306.0	11.8578	35.5013	26.9825	3.258
308.0	11.6602	35.4440	26.9830	3.255

DEPTH (m)	TEMPERATURE (°C)	SALINITY (0/00)	DENSITY (SIGMA-T)	LIGHT TRANSMISSION (VOLTS# 0)

CRUISE 4
SITE E

DEPTH (m)	TEMPERATURE (°C)	SALINITY (0/00)	DENSITY (SIGMA-T)	LIGHT TRANSMISSION (VOLTS# 0)
2.0	22.2609	34.8925	24.0540	0.801
4.0	22.2954	35.8114	24.7226	2.641
6.0	22.3313	36.2685	25.0499	3.155
8.0	22.2805	36.2893	25.0797	3.166
10.0	22.2122	36.3395	25.1362	3.179
12.0	22.1224	36.3535	25.1720	3.184
14.0	22.0135	36.3647	25.2110	3.184
16.0	21.8980	36.3833	25.2572	3.186
18.0	21.8279	36.3653	25.2636	3.178
20.0	21.7700	36.3672	25.2813	3.175
22.0	21.7446	36.3685	25.2893	3.176
24.0	21.7030	36.3679	25.3005	3.175
26.0	21.6792	36.3684	25.3075	3.171
28.0	21.6341	36.3672	25.3193	3.161
30.0	21.6149	36.3675	25.3248	3.164
32.0	21.5645	36.3688	25.3399	3.172
34.0	21.4714	36.3542	25.3549	3.179
36.0	21.2646	36.2502	25.3352	3.183
38.0	21.1579	36.2630	25.3741	3.188
40.0	21.1491	36.3010	25.4046	3.187
42.0	21.1364	36.2873	25.3980	3.197
44.0	21.1003	36.2882	25.4086	3.203
46.0	21.0204	36.2923	25.4334	3.205
48.0	20.9868	36.2836	25.4363	3.198
50.0	20.9714	36.2823	25.4395	3.203
52.0	20.9473	36.2919	25.4532	3.196
54.0	20.9058	36.2751	25.4521	3.206
56.0	20.8891	36.2745	25.4562	3.207
58.0	20.8777	36.2804	25.4637	3.208
60.0	20.8777	36.2798	25.4633	3.199
62.0	20.8872	36.2870	25.4659	3.213
64.0	20.8764	36.2893	25.4706	3.223
66.0	20.8545	36.2797	25.4695	3.224
68.0	20.8153	36.2952	25.4916	3.224
70.0	20.6996	36.2573	25.4949	3.234
72.0	20.6265	36.2588	25.5159	3.226
74.0	20.5235	36.2625	25.5465	3.230
76.0	20.4379	36.2367	25.5504	3.245
78.0	20.4047	36.2555	25.5733	3.238
80.0	20.3979	36.2775	25.5914	3.226
82.0	20.3487	36.2664	25.5964	3.214
84.0	20.3462	36.2717	25.6010	3.228

DEPTH (m)	TEMPERATURE (°C)	SALINITY (0/00)	DENSITY (SIGMA-T)	LIGHT TRANSMISSION (VOLTS# 0)
86.0	20.3436	36.2771	25.6057	3.226
88.0	20.3329	36.2748	25.6068	3.222
90.0	20.3159	36.2775	25.6134	3.216
92.0	20.3125	36.2849	25.6199	3.209
94.0	20.3075	36.2834	25.6200	3.212
96.0	20.2601	36.2848	25.6338	3.222
98.0	20.2208	36.3060	25.6601	3.230
100.0	20.1025	36.3322	25.7110	3.249
102.0	20.0065	36.3399	25.7422	3.255
104.0	19.9173	36.3571	25.7787	3.257
106.0	19.7922	36.3878	25.8345	3.260
108.0	19.6794	36.4699	25.9252	3.261
110.0	19.5735	36.4706	25.9535	3.268
112.0	19.4250	36.4990	26.0134	3.272
114.0	19.4062	36.5451	26.0526	3.275
116.0	19.2411	36.5348	26.0879	3.278
118.0	19.1138	36.5549	26.1358	3.279
120.0	18.9313	36.5012	26.1429	3.281
122.0	18.6578	36.4652	26.1860	3.277
124.0	18.4391	36.4892	26.2593	3.281
126.0	18.2664	36.4302	26.2589	3.282
128.0	18.2302	36.4186	26.2593	3.282
130.0	18.1845	36.4177	26.2701	3.281
132.0	18.1448	36.4040	26.2698	3.281
134.0	18.0323	36.3876	26.2857	3.282
136.0	17.9380	36.3964	26.3156	3.282
138.0	17.8206	36.4084	26.3537	3.282
140.0	17.6446	36.3515	26.3546	3.283
142.0	17.4853	36.3503	26.3927	3.283
144.0	17.2794	36.3467	26.4401	3.280
146.0	17.1234	36.3197	26.4577	3.283
148.0	17.1081	36.3260	26.4660	3.283
150.0	17.1031	36.3278	26.4686	3.278
152.0	16.9279	36.2943	26.4856	3.283
154.0	16.8604	36.3064	26.5108	3.283
156.0	16.7267	36.3278	26.5586	3.281
158.0	16.6222	36.2689	26.5394	3.279
160.0	16.5647	36.2455	26.5355	3.278
162.0	16.4844	36.2493	26.5572	3.278
164.0	16.3675	36.2120	26.5567	3.278
166.0	16.2593	36.1952	26.5695	3.279
168.0	16.1879	36.1768	26.5723	3.280
170.0	16.1075	36.1835	26.5960	3.278
172.0	15.9905	36.1592	26.6048	3.280
174.0	15.8747	36.1551	26.6284	3.281

DEPTH (m)	TEMPERATURE (°C)	SALINITY (0/00)	DENSITY (SIGMA-T)	LIGHT TRANSMISSION (VOLTS# 0)
176.0	15.8336	36.1385	26.6254	3.281
178.0	15.7554	36.2017	26.6907	3.281
180.0	15.6847	36.1942	26.7012	3.280
182.0	15.6380	36.1168	26.6538	3.280
184.0	15.5847	36.1026	26.6554	3.280
186.0	15.5594	36.1062	26.6638	3.279
188.0	15.5377	36.0991	26.6634	3.280
190.0	15.4663	36.0854	26.6693	3.281
192.0	15.4311	36.0871	26.6784	3.280
194.0	15.4074	36.0844	26.6818	3.281
196.0	15.3694	36.0710	26.6803	3.280
198.0	15.3399	36.0732	26.6886	3.281
200.0	15.3186	36.0661	26.6880	3.280
202.0	15.3020	36.0674	26.6927	3.279
204.0	15.2259	36.0398	26.6891	3.280
206.0	15.1704	36.0346	26.6976	3.280
208.0	15.1436	36.0351	26.7039	3.280
210.0	15.0994	36.0190	26.7017	3.279
212.0	14.9345	35.9738	26.7043	3.276
214.0	14.7163	35.9462	26.7316	3.256
216.0	14.6963	35.9483	26.7376	3.244
218.0	14.6862	35.9709	26.7567	3.241
220.0	14.6632	35.9525	26.7479	3.233
222.0	14.6138	35.9349	26.7455	3.232
224.0	14.5639	35.9408	26.7607	3.245
226.0	14.4652	35.9260	26.7710	3.260
228.0	14.3888	35.8979	26.7665	3.264
230.0	14.3311	35.8887	26.7720	3.266
232.0	14.2859	35.9447	26.8237	3.268
234.0	14.2381	35.9170	26.8132	3.269
236.0	14.1833	35.8679	26.7881	3.269
238.0	14.1470	35.8560	26.7869	3.269
240.0	14.0619	35.8750	26.8192	3.267
242.0	13.9702	35.8377	26.8107	3.264
244.0	13.9414	35.8288	26.8101	3.261
246.0	13.9063	35.8188	26.8100	3.256
248.0	13.8688	35.8389	26.8330	3.254
250.0	13.8040	35.8248	26.8360	3.245
252.0	13.7222	35.8053	26.8385	3.231
254.0	13.6915	35.7849	26.8296	3.210
256.0	13.6586	35.8035	26.8505	3.197
258.0	13.6392	35.7903	26.8446	3.194
260.0	13.6305	35.7758	26.8355	3.191
262.0	13.6033	35.7639	26.8322	3.189
264.0	13.5760	35.7636	26.8377	3.192

DEPTH (m)	TEMPERATURE (°C)	SALINITY (0/00)	DENSITY (SIGMA-T)	LIGHT TRANSMISSION (VOLTS# 0)
266.0	13.5318	35.7589	26.8432	3.196
268.0	13.5083	35.7544	26.8448	3.198
270.0	13.5008	35.7504	26.8433	3.197
272.0	13.4805	35.7799	26.8696	3.200
274.0	13.4436	35.7486	26.8538	3.193
276.0	13.4295	35.7374	26.8482	3.189
278.0	13.3944	35.7293	26.8495	3.192
280.0	13.3755	35.7317	26.8551	3.192
282.0	13.3709	35.7266	26.8522	3.188
284.0	13.3649	35.7251	26.8523	3.186
286.0	13.3445	35.7272	26.8581	3.191
288.0	13.3233	35.7273	26.8625	3.194
290.0	13.3053	35.7173	26.8587	3.193
292.0	13.3009	35.7138	26.8569	3.187
294.0	13.2974	35.7337	26.8726	3.193
296.0	13.1994	35.7057	26.8716	3.195
298.0	13.1796	35.6939	26.8668	3.199
300.0	13.1767	35.7007	26.8725	3.201
302.0	13.1172	35.6816	26.8702	3.205
306.0	12.8328	35.6638	26.9142	3.243

CTD GRAPHS
CRUISES 3 & 4

Cruise 3

STATION	DATE	TIME (GMT)	LATITUDE	LONGITUDE
C1	8/19/88	21:54	30°03.56' N	88°38.09' W
S1	8/20/88	00:33	29°51.05' N	88°37.77' W
S2B	8/20/88	02:41	29°38.04' N	88°34.11' W
C2	8/20/88	04:06	29°26.93' N	88°34.32' W
S3	8/20/88	10:42	29°15.47' N	88°41.19' W
C3	8/20/88	14:51	29°04.58' N	88°46.98' W
C4	8/20/88	17:07	28°54.85' N	88°52.46' W
C4B	8/21/88	01:38	28°55.31' N	88°52.95' W
S4	8/21/88	04:08	29°02.79' N	88°36.42' W
S5	8/21/88	06:09	29°09.26' N	88°20.86' W
M4	8/21/88	12:02	29°15.20' N	88°06.79' W
M3	8/21/88	14:23	29°16.79' N	88°06.37' W
M2A	8/21/88	17:58	29°24.27' N	88°06.49' W
M2B	8/21/88	18:33	29°24.26' N	88°06.48' W
S6	8/21/88	23:23	29°37.70' N	88°06.75' W
S7	8/22/88	01:24	29°51.06' N	88°06.60' W
M1	8/22/88	03:17	30°04.82' N	88°06.90' W
D1	8/22/88	10:19	30°05.20' N	87°41.42' W
D2	8/23/88	01:42	29°47.83' N	87°23.03' W
D3	8/23/88	08:47	29°43.21' N	87°20.18' W
D4	8/23/88	15:53	29°40.88' N	87°15.66' W
B	8/24/88	05:35	29°37.43' N	87°31.59' W
C	8/25/88	06:00	29°24.58' N	87°20.36' W
S8	8/25/88	09:15	29°29.76' N	87°46.53' W
S9	8/25/88	13:48	29°52.70' N	88°19.22' W

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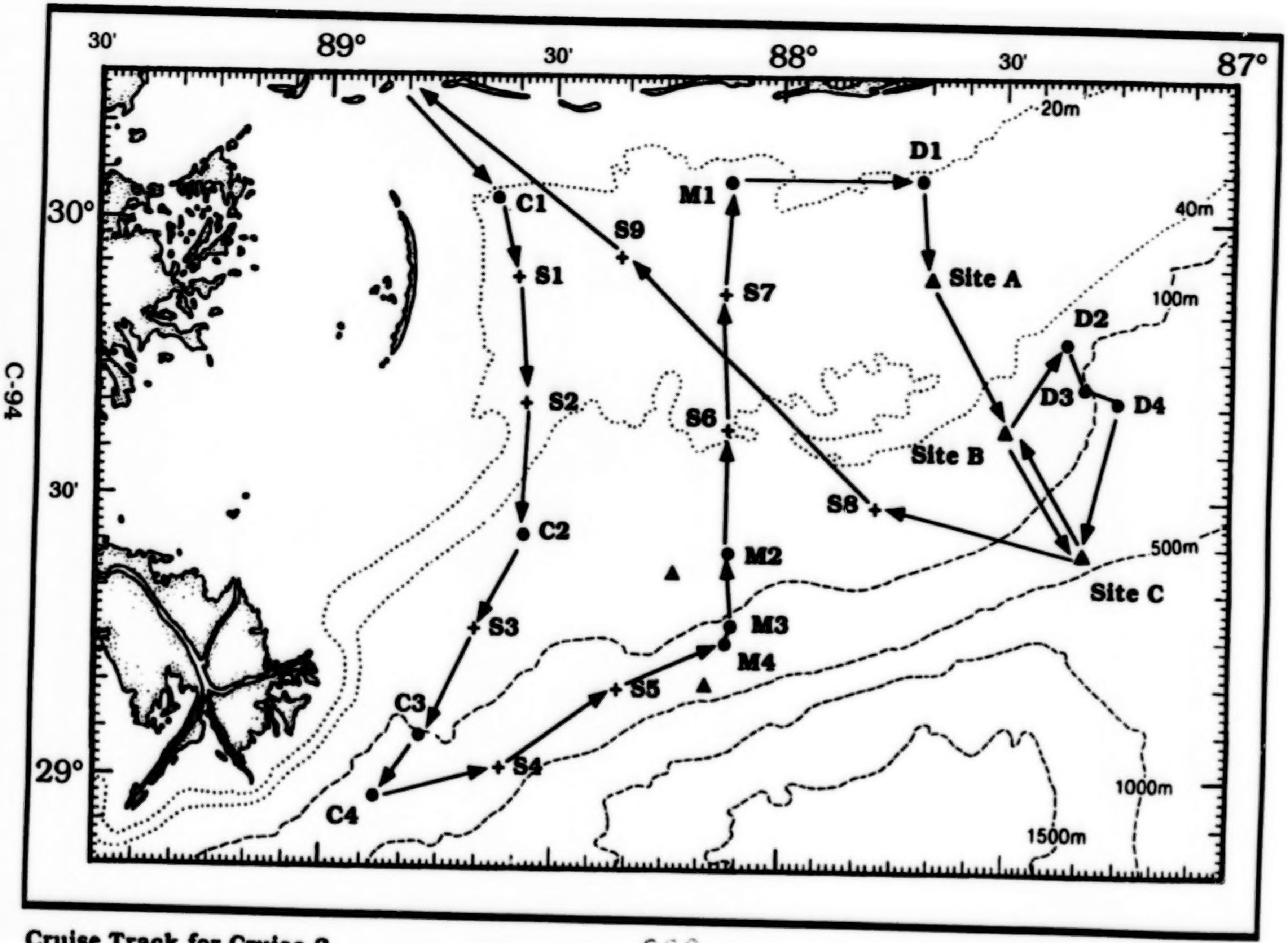
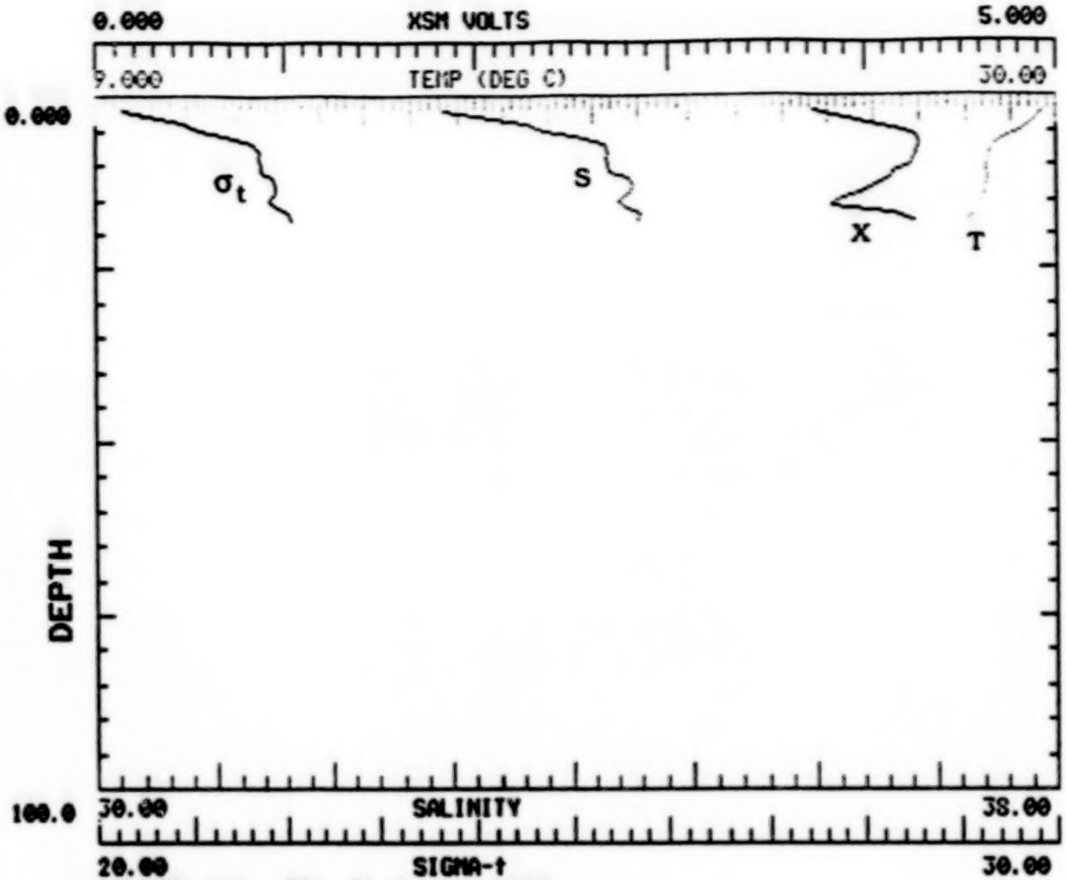


Cruise Track for Cruise 3



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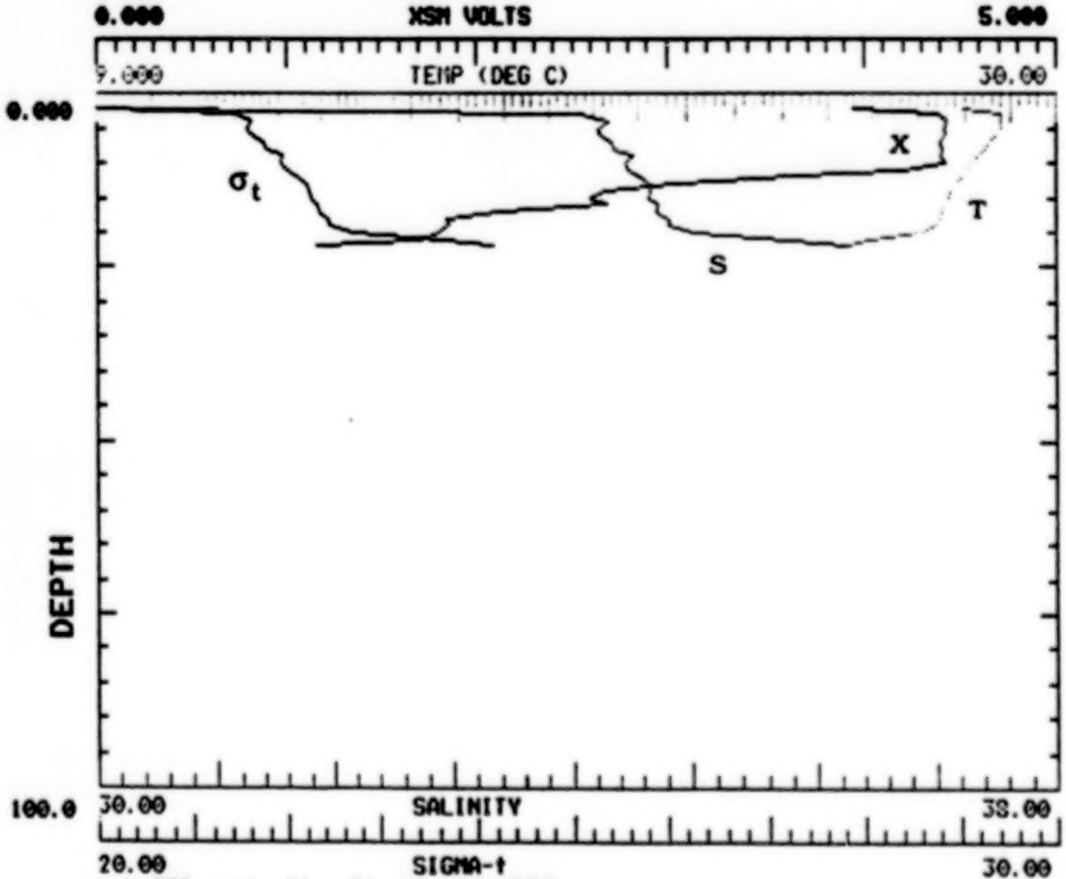

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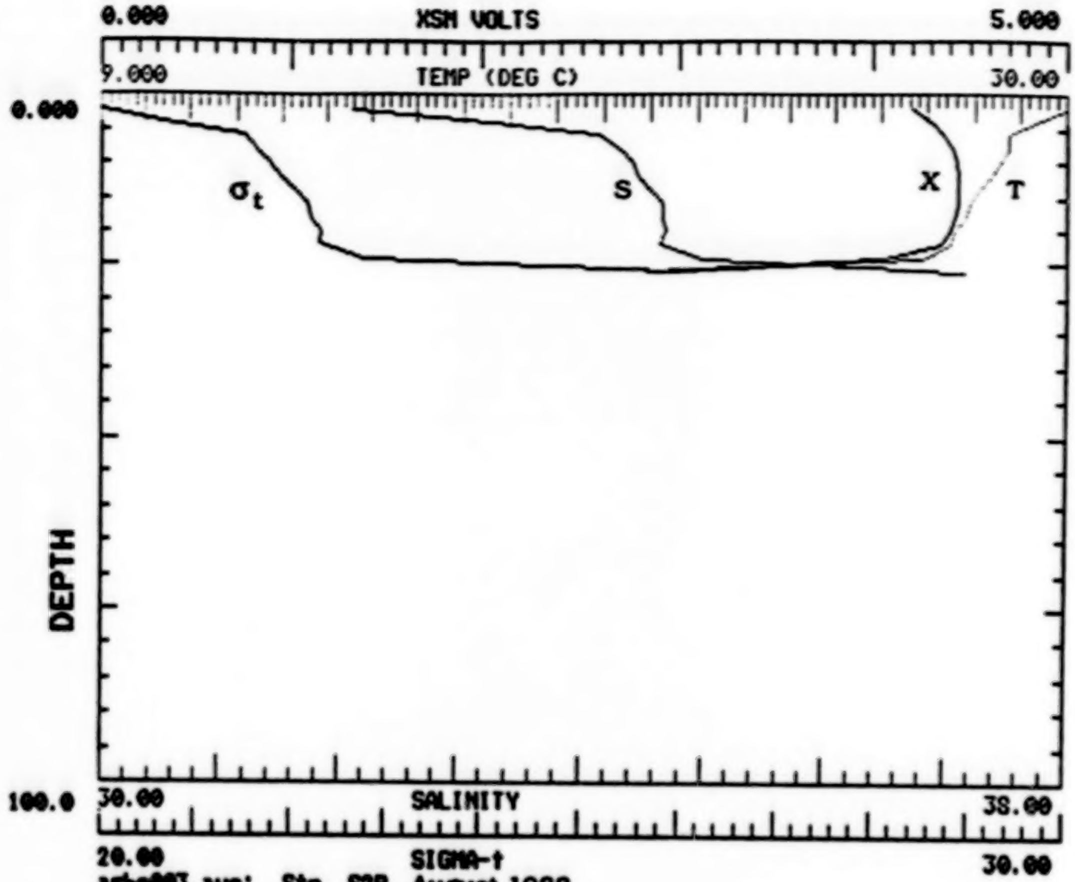
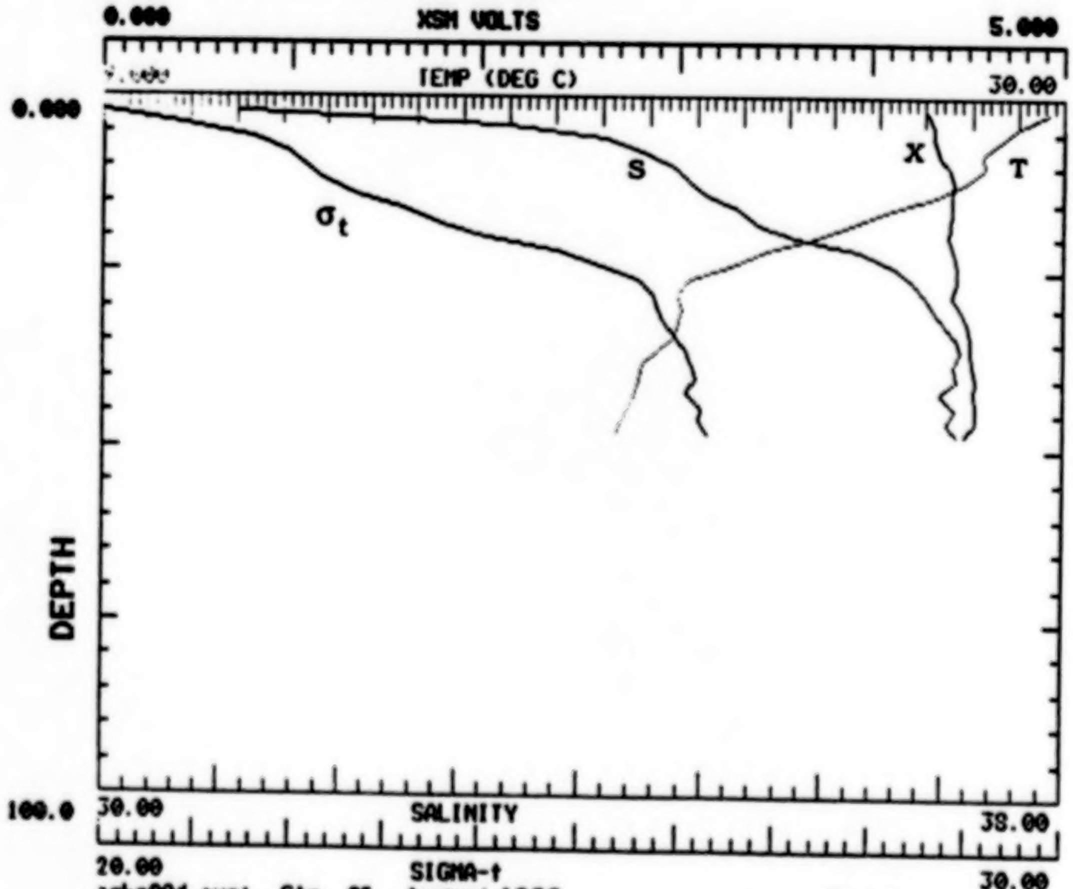


asbe003.avg: Stn. S2B August 1988



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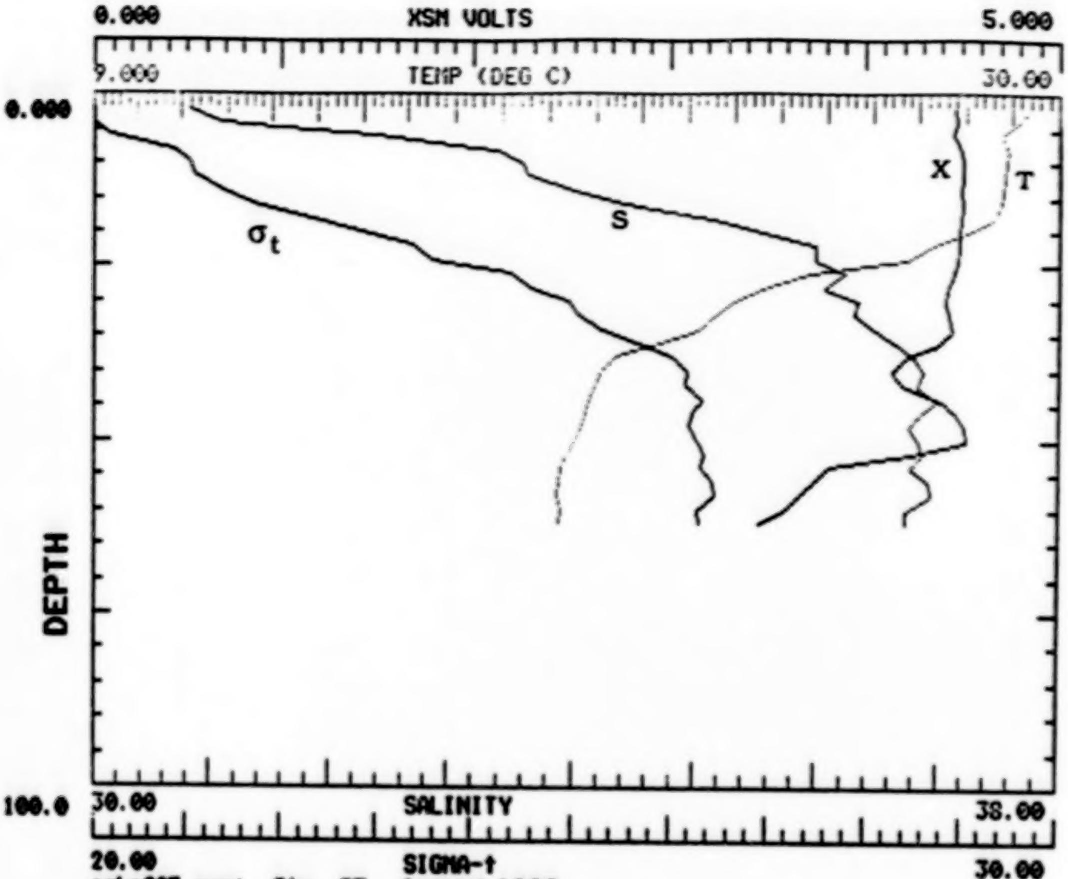

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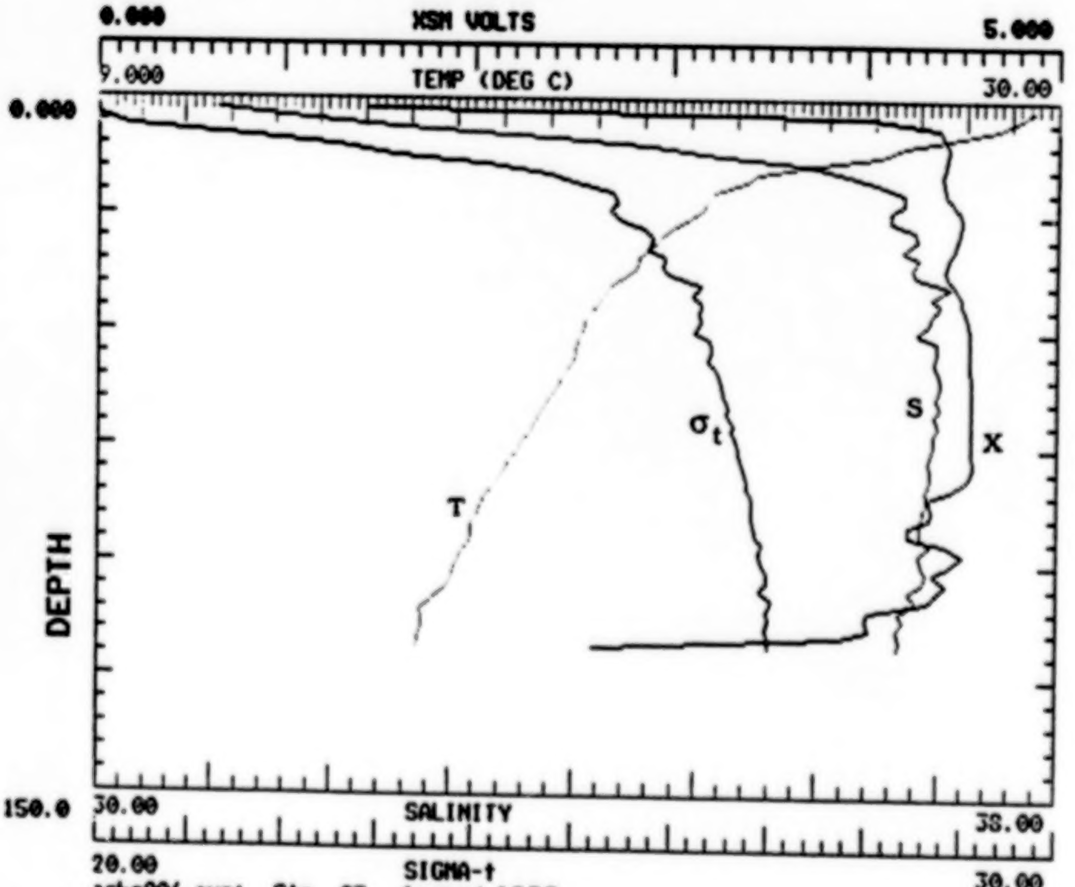

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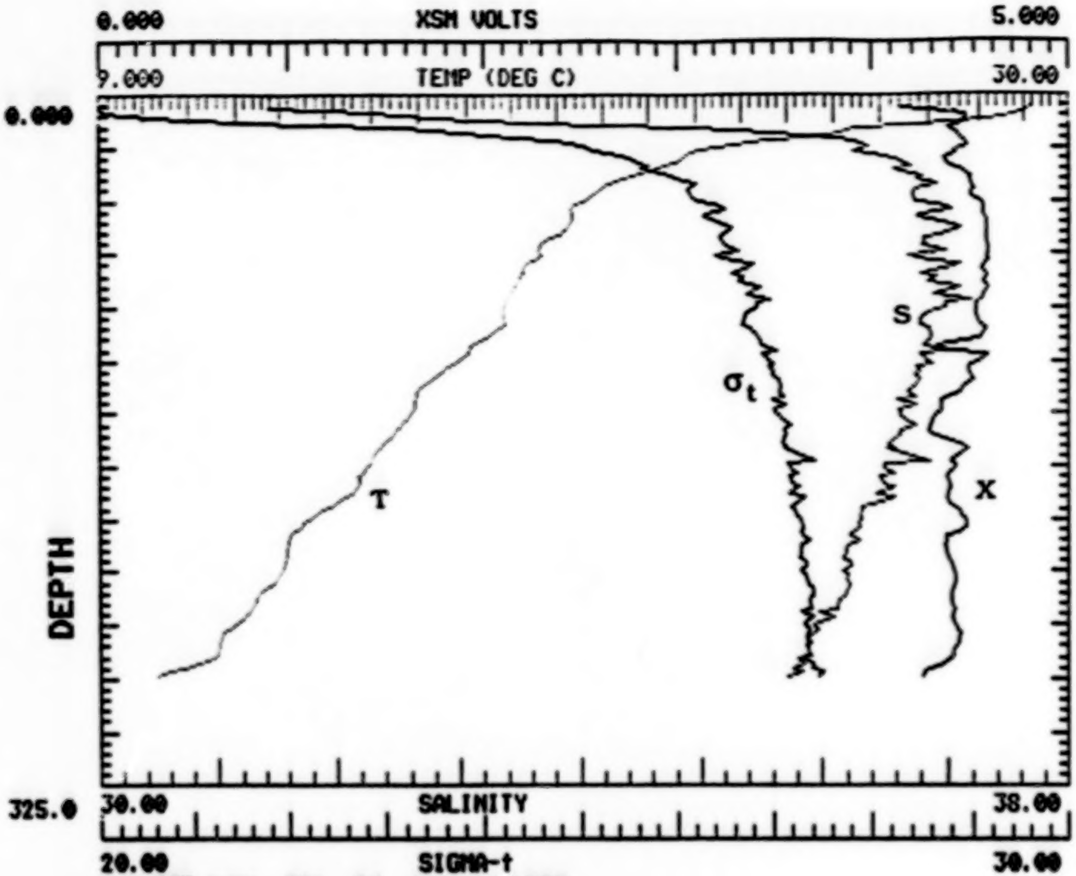
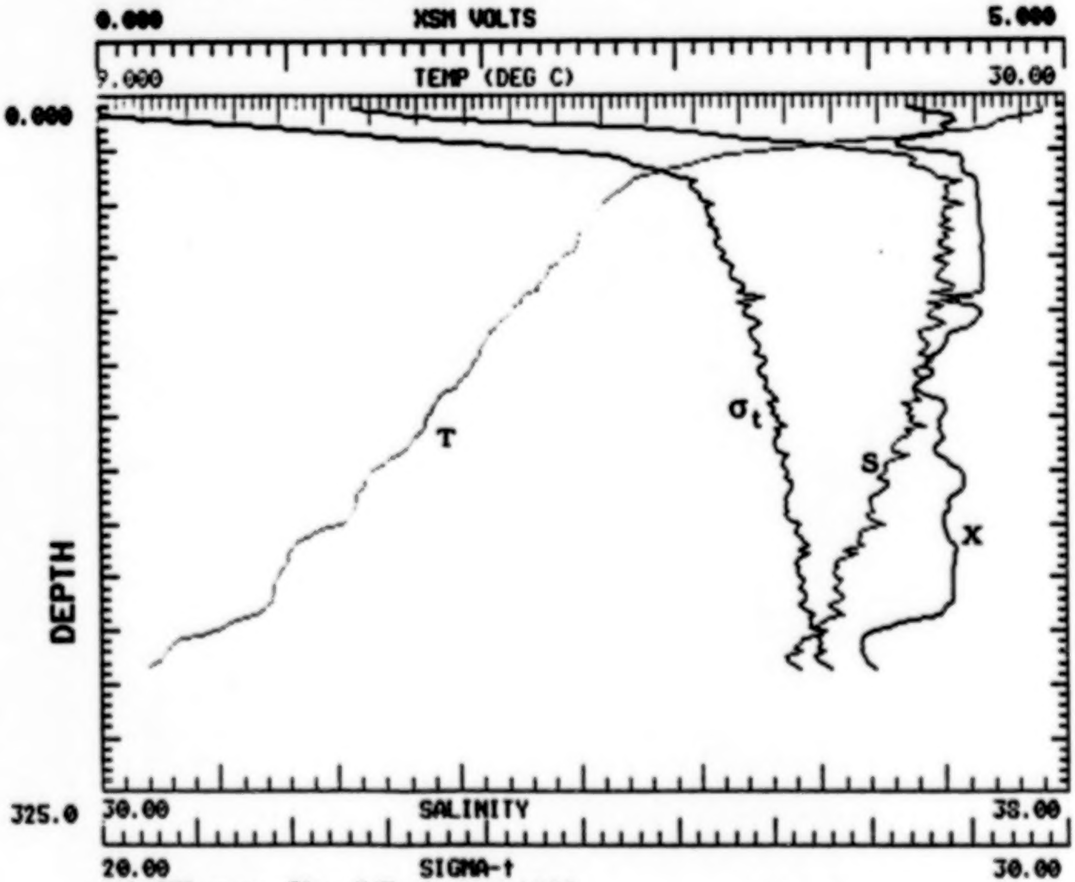
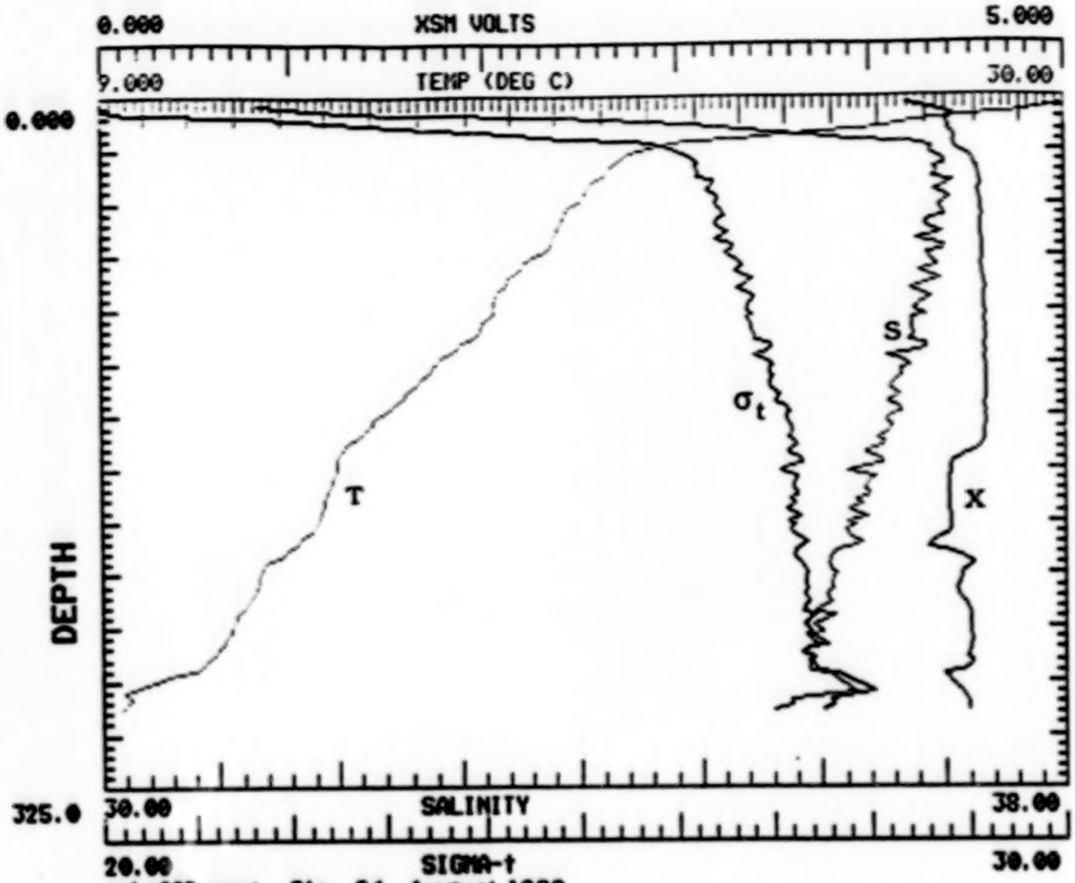


asbe007.avg: Stn. C4 August 1988



asbe008.avg: Stn. C4B August 1988



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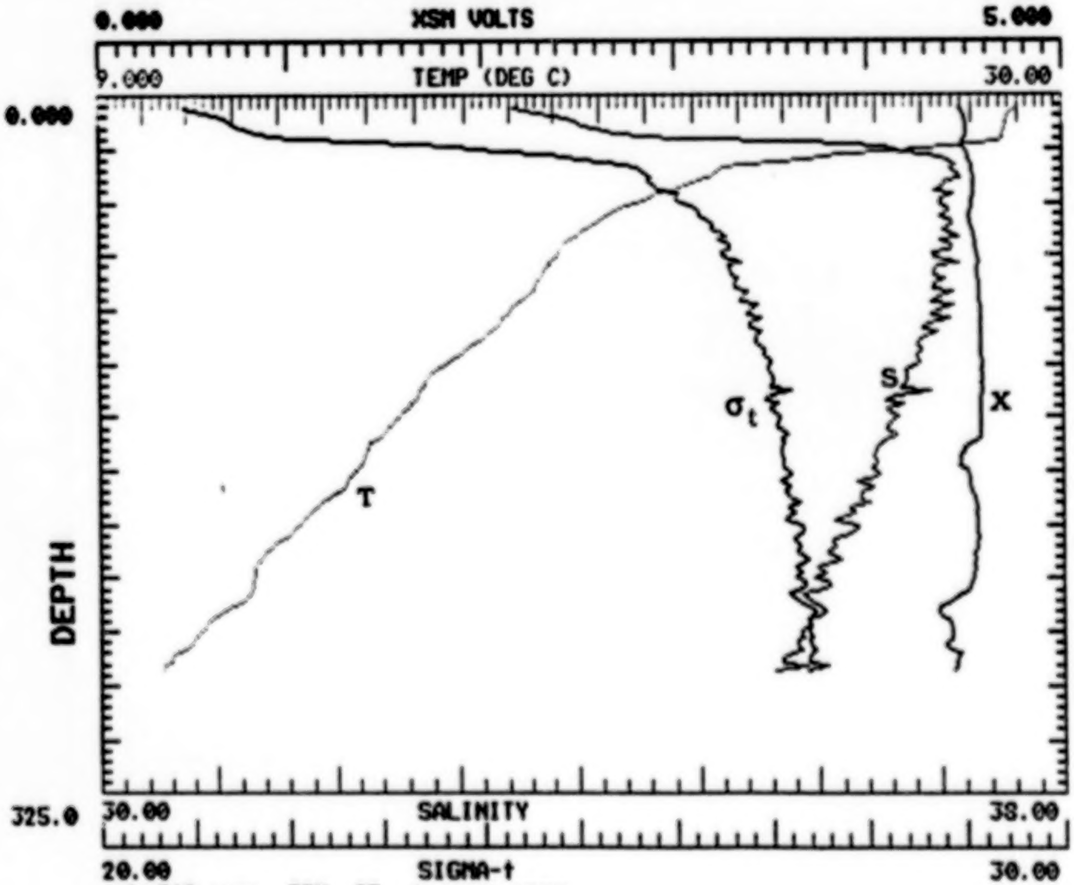

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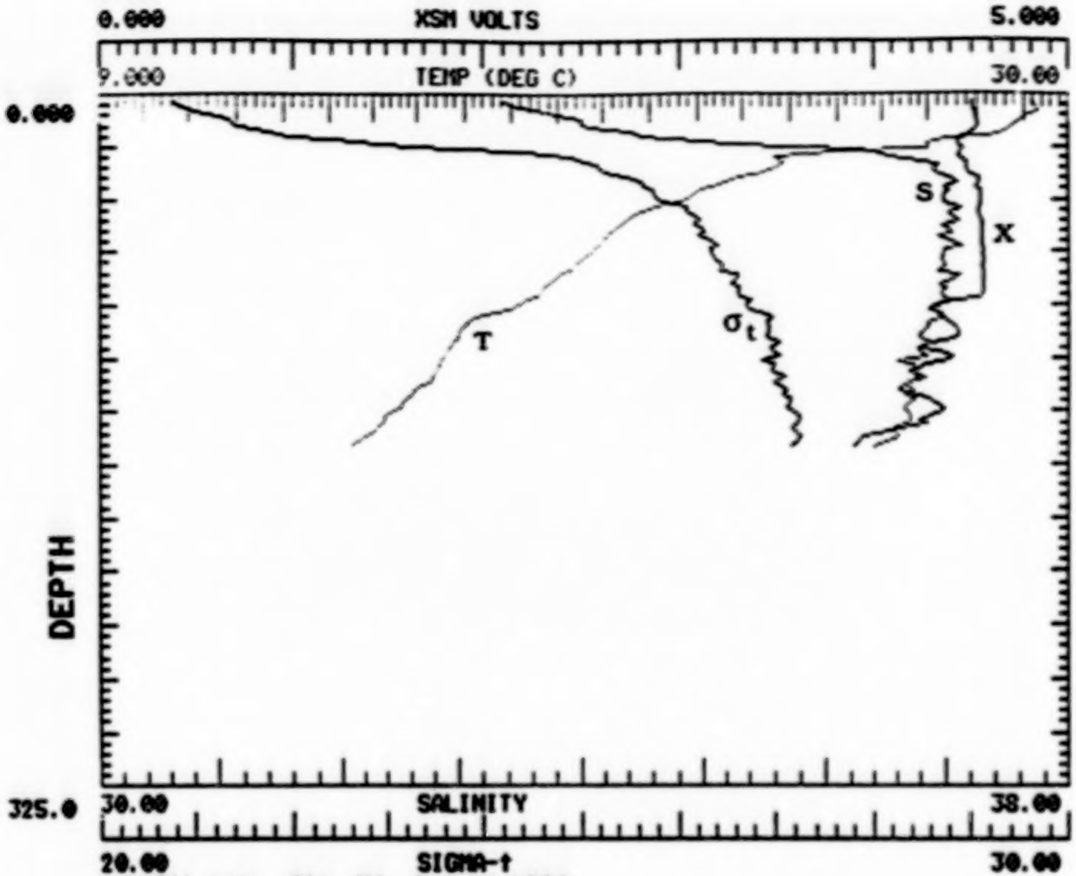

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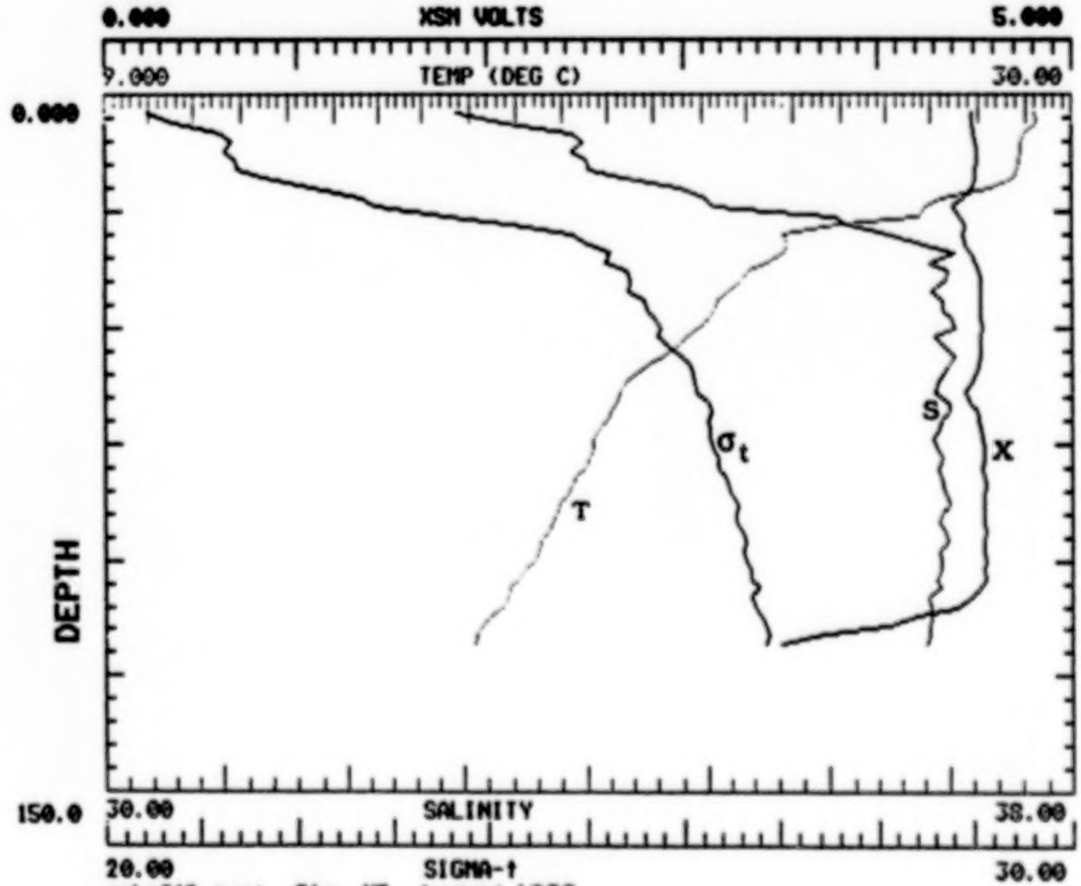

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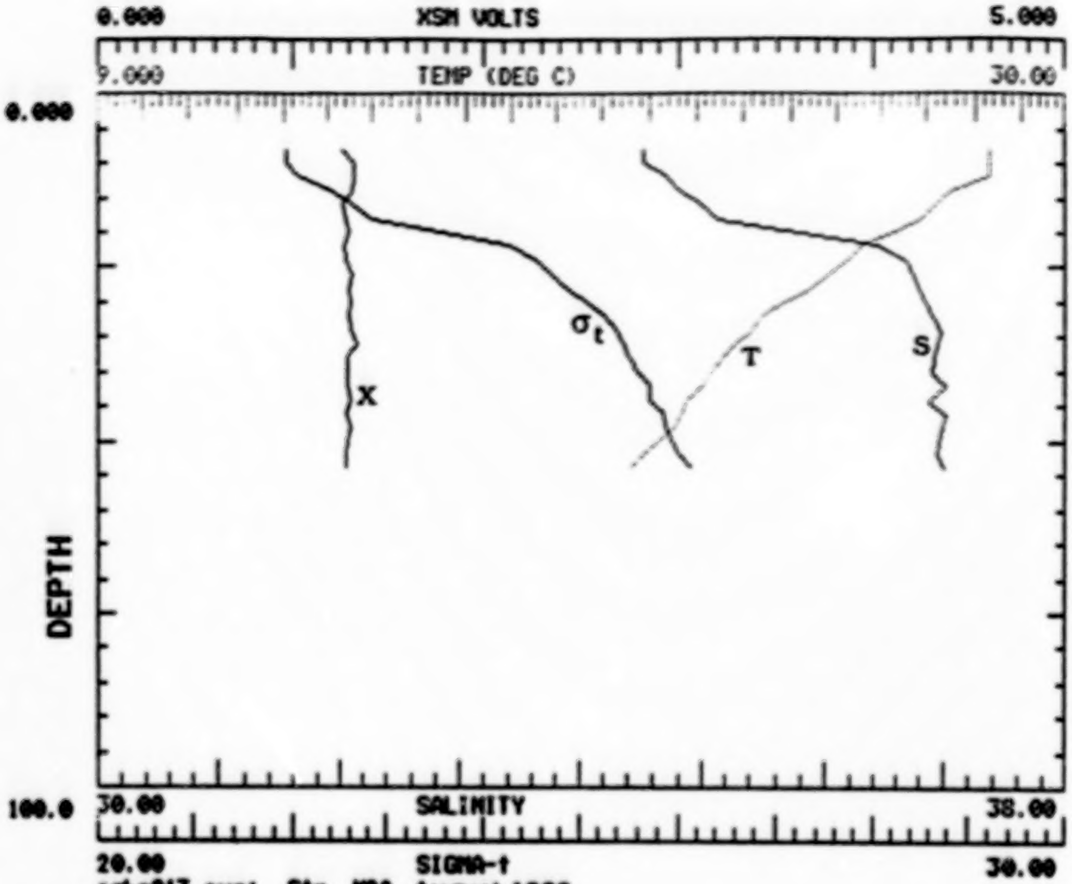

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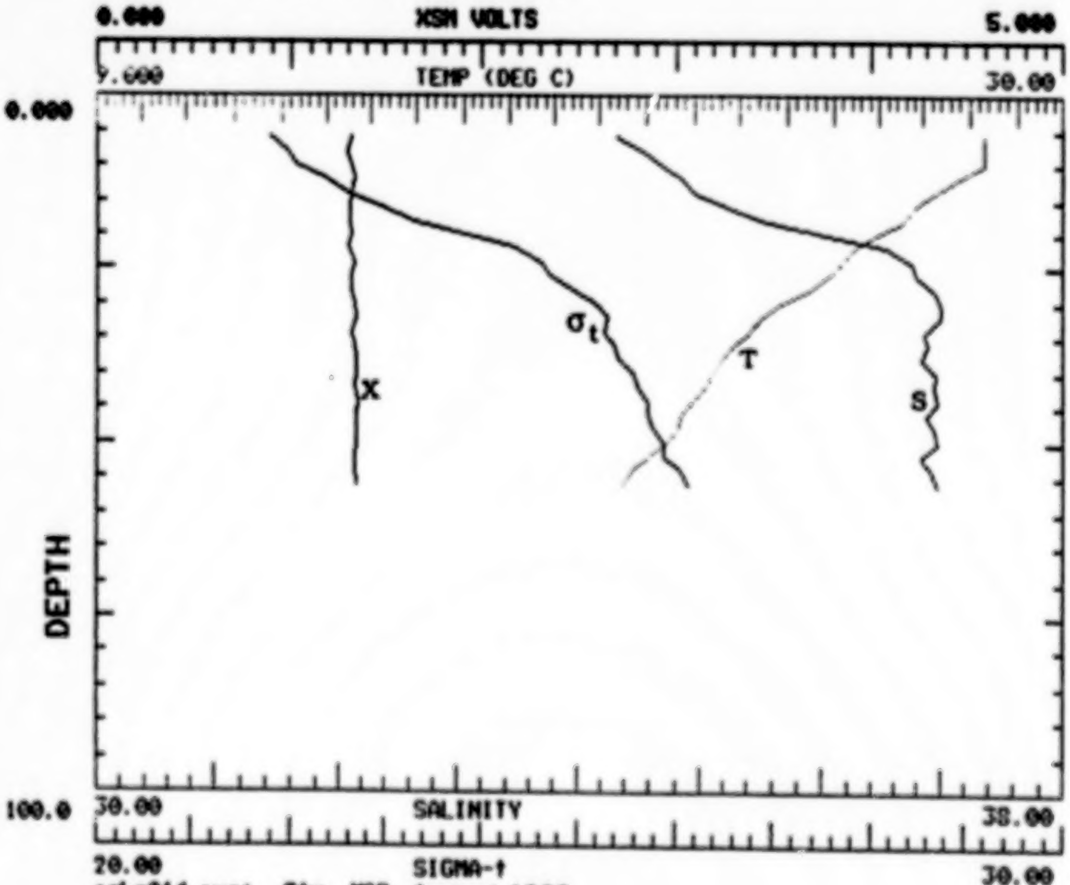

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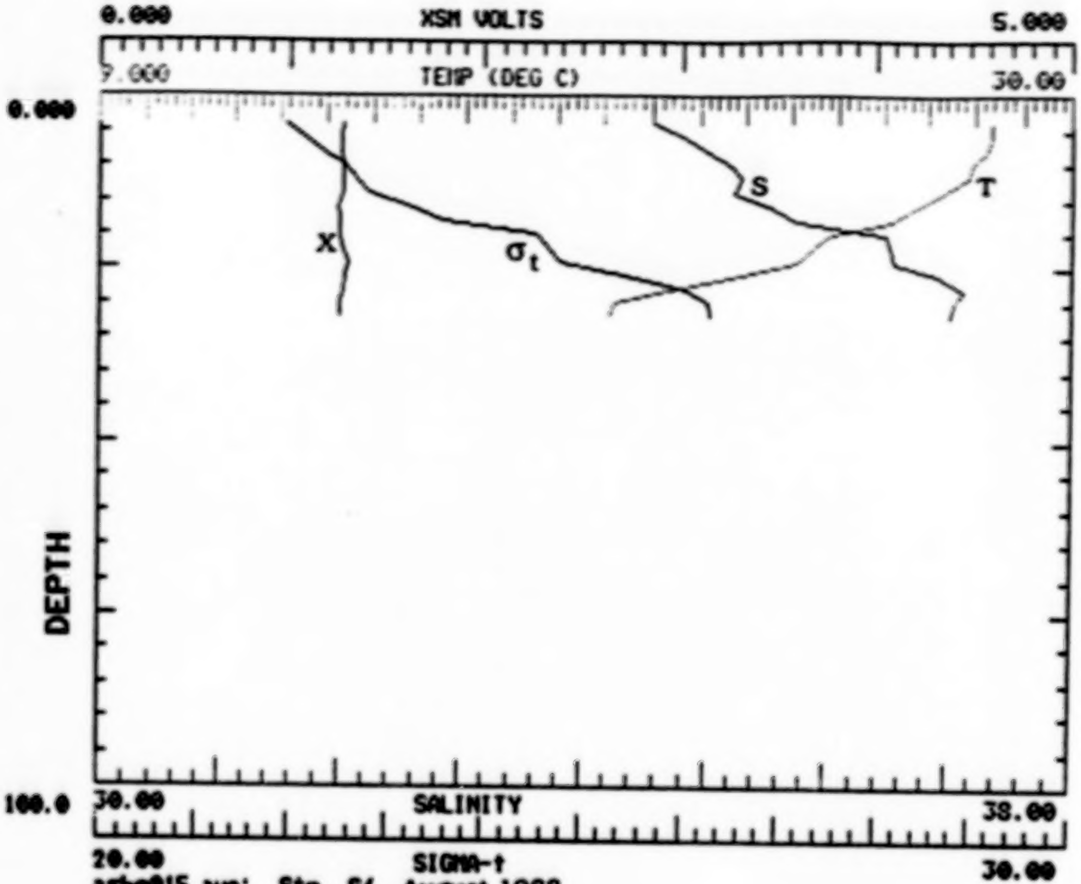

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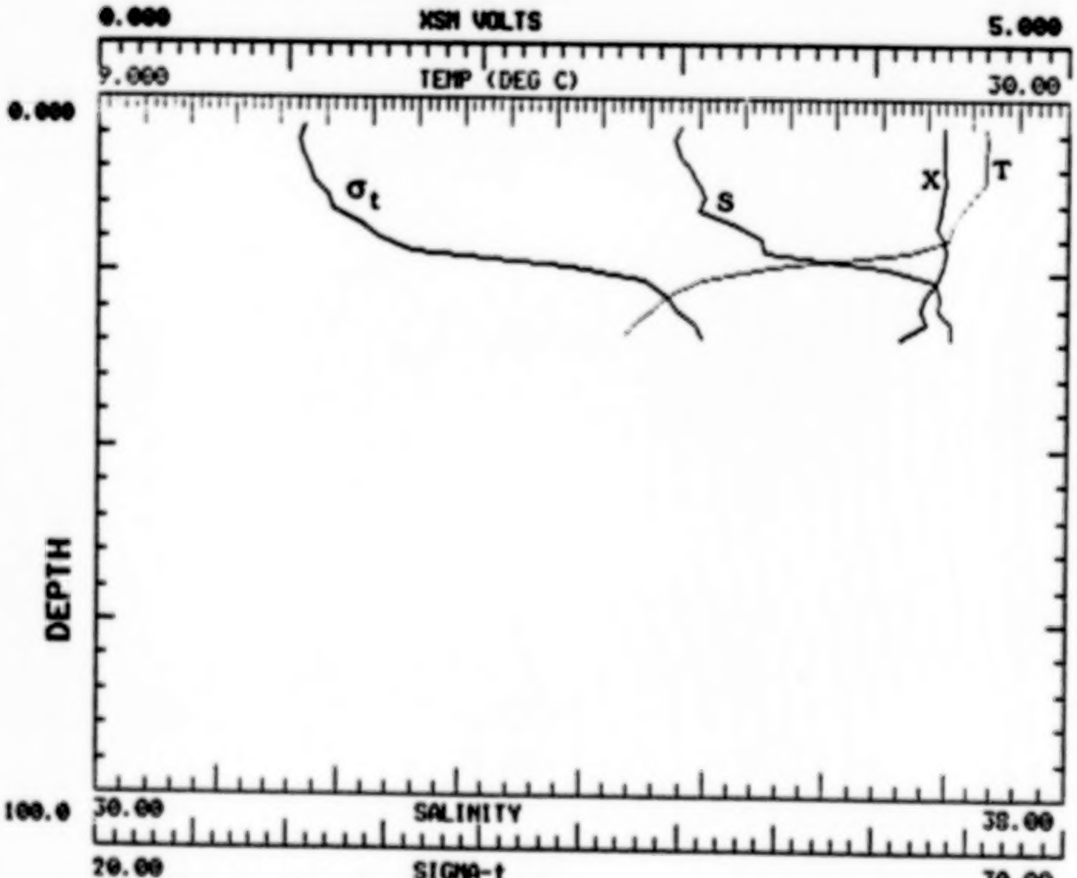

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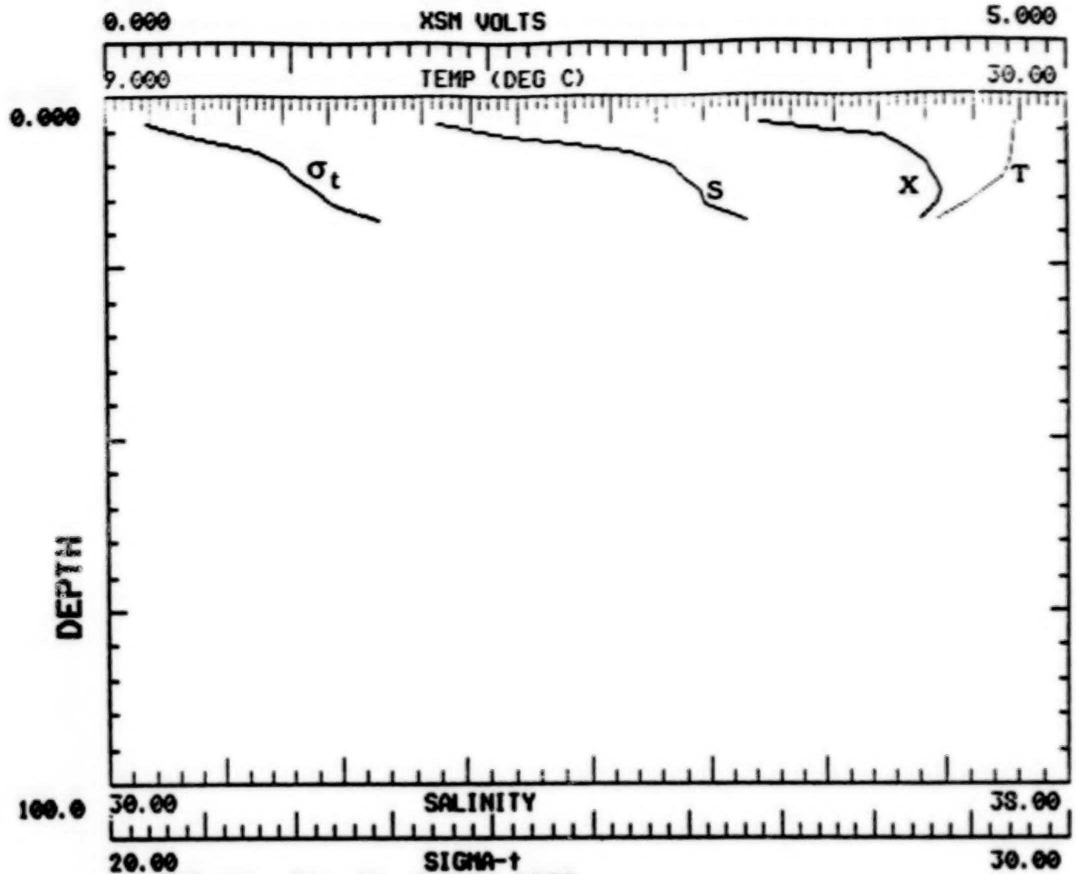
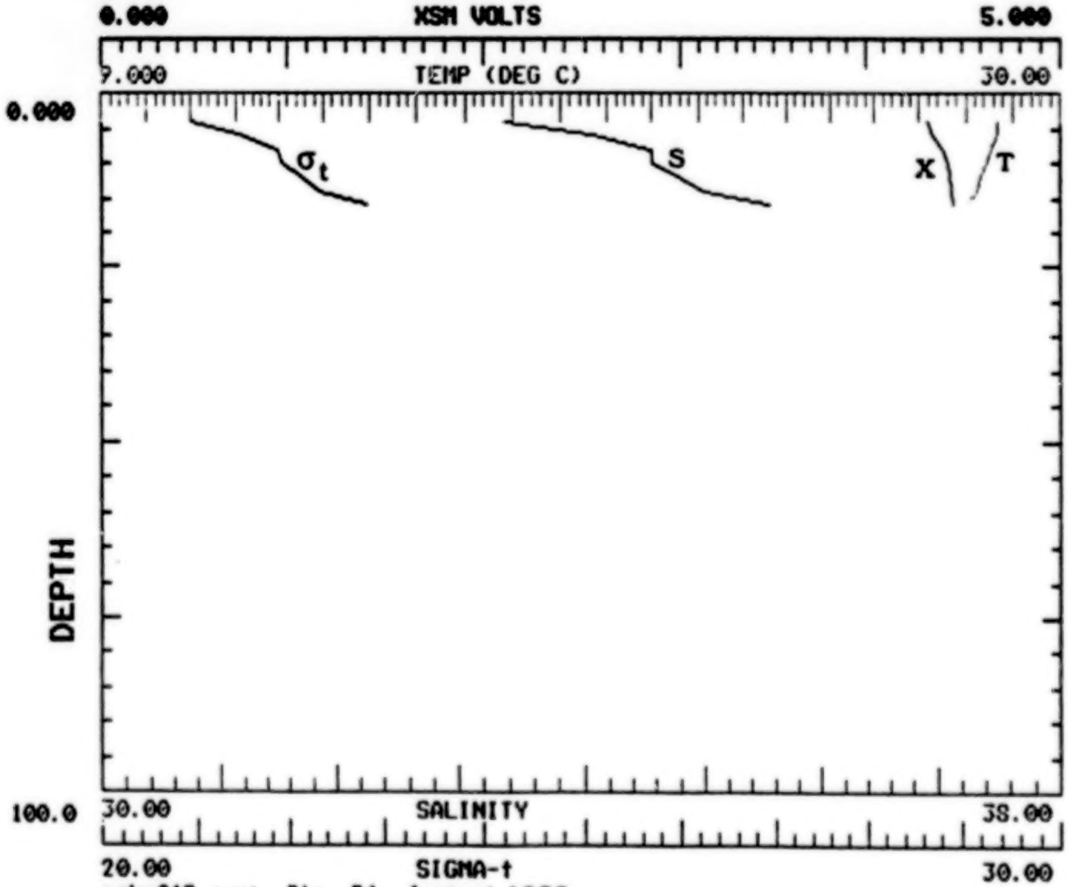
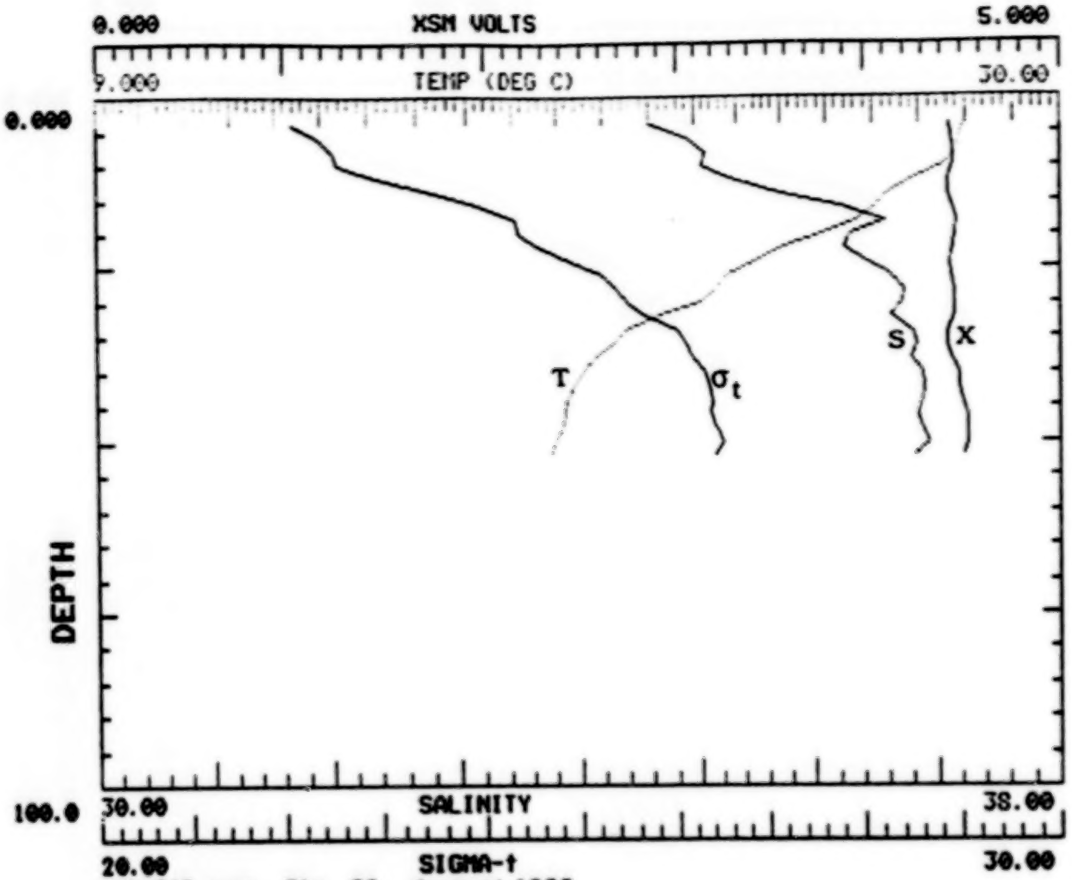


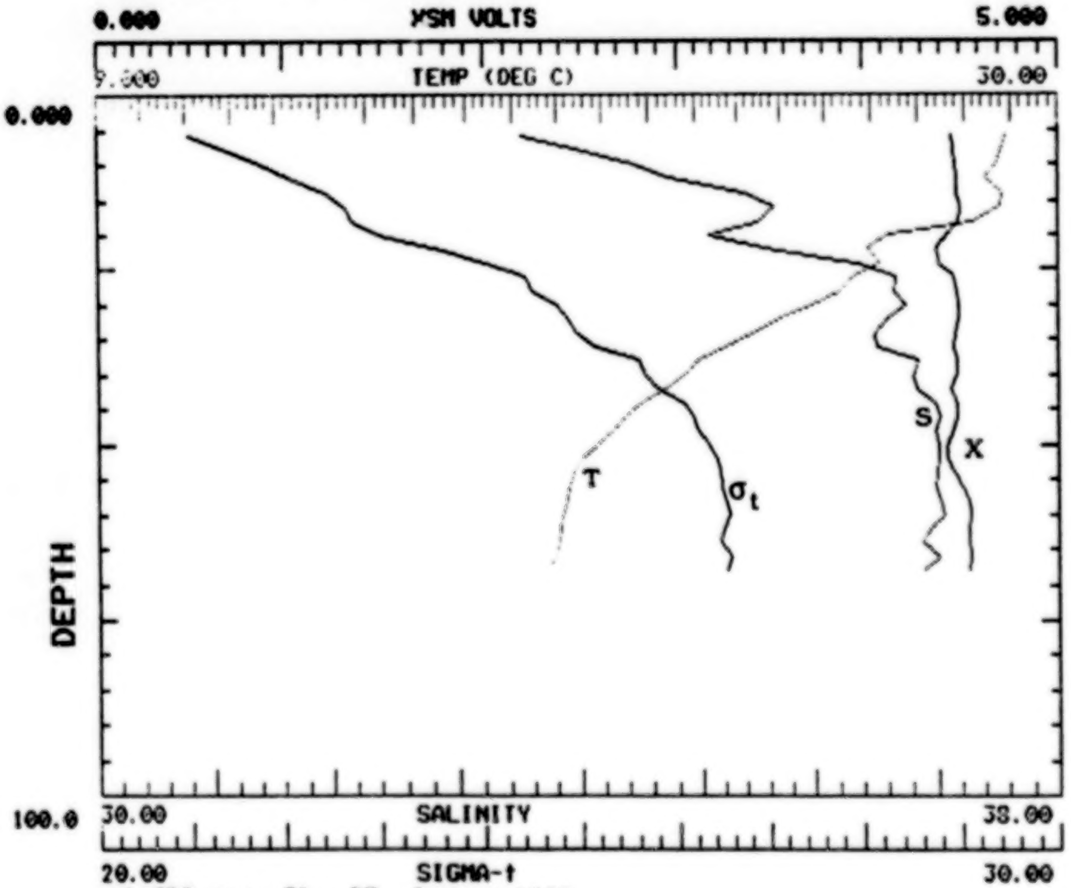
asbe017.avg: Stn. M1 August 1988



asbe018.avg: Stn. D1 August 1988



asbe019.avg: Stn. D2 August 1988



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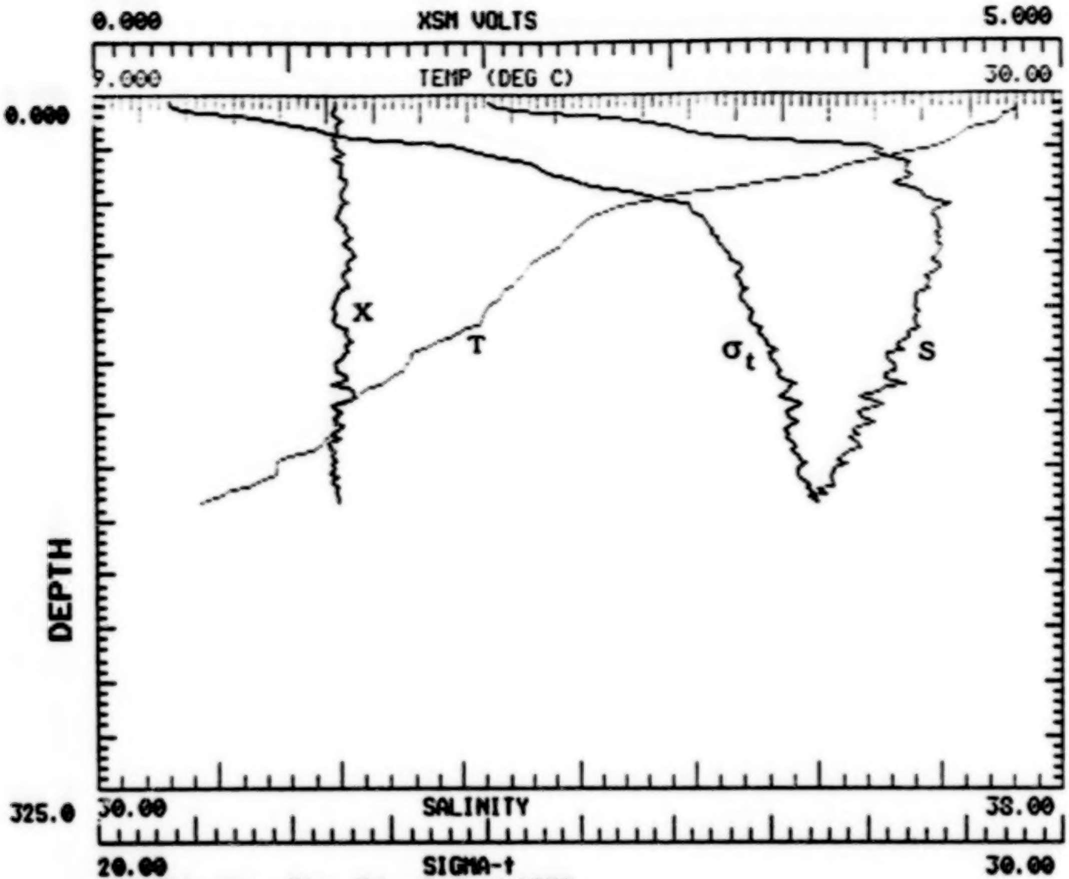

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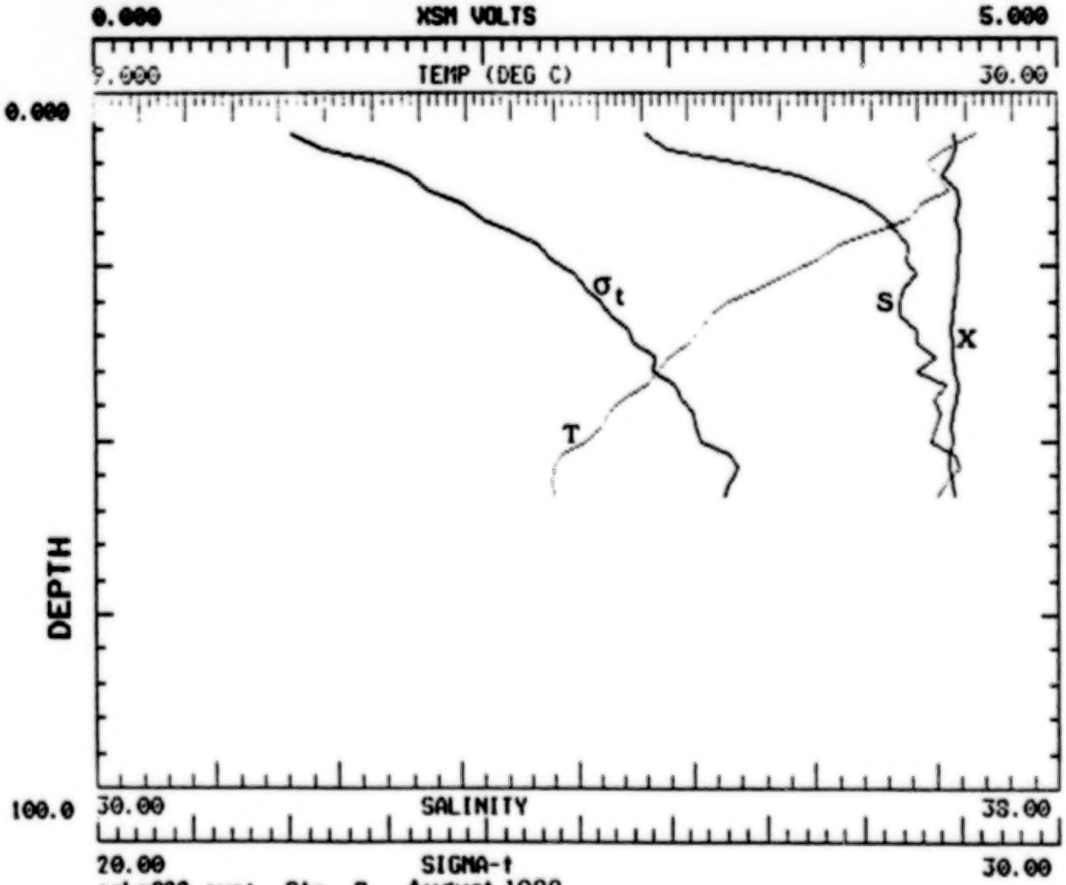
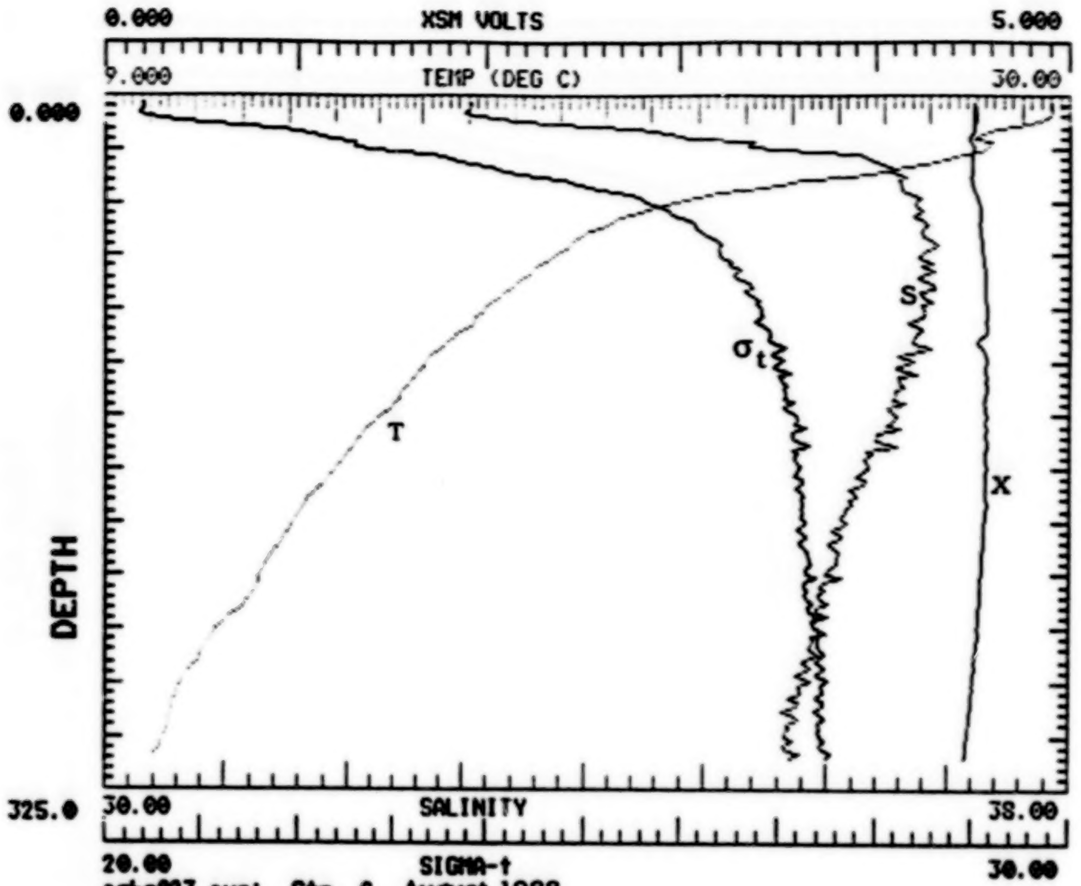
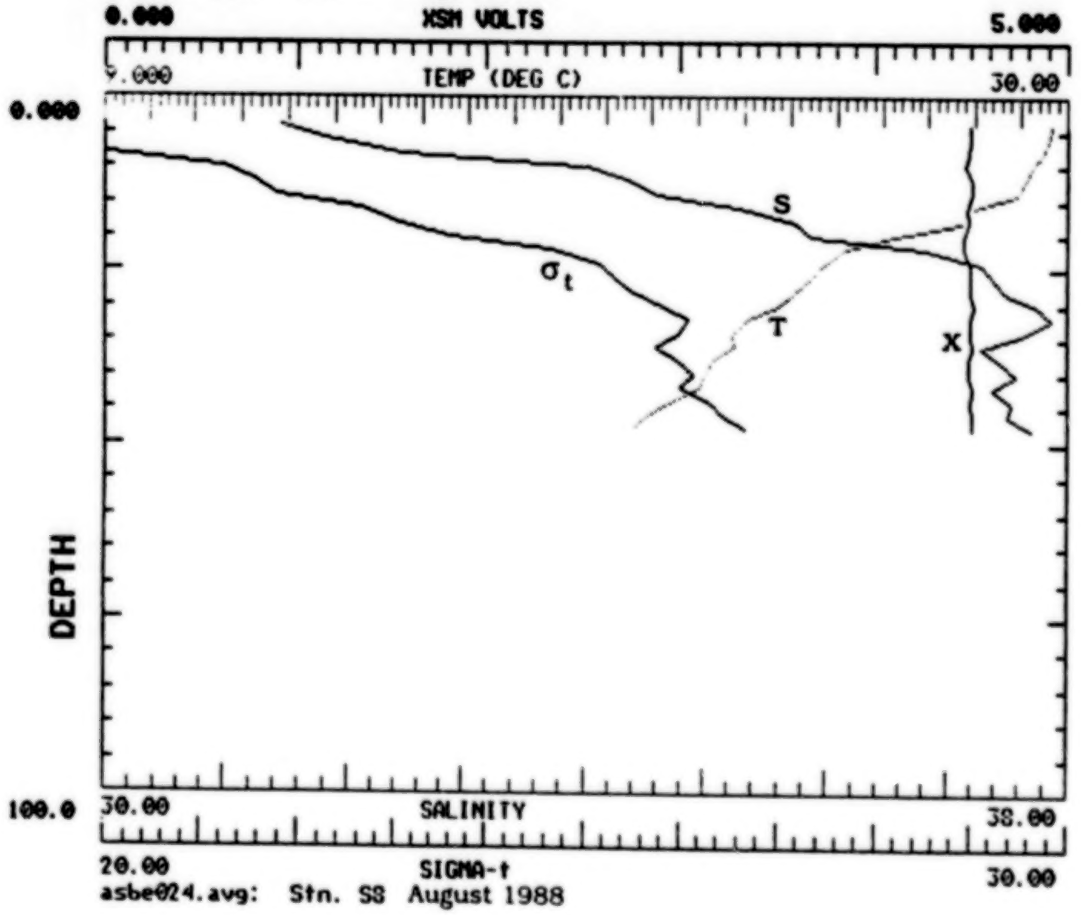


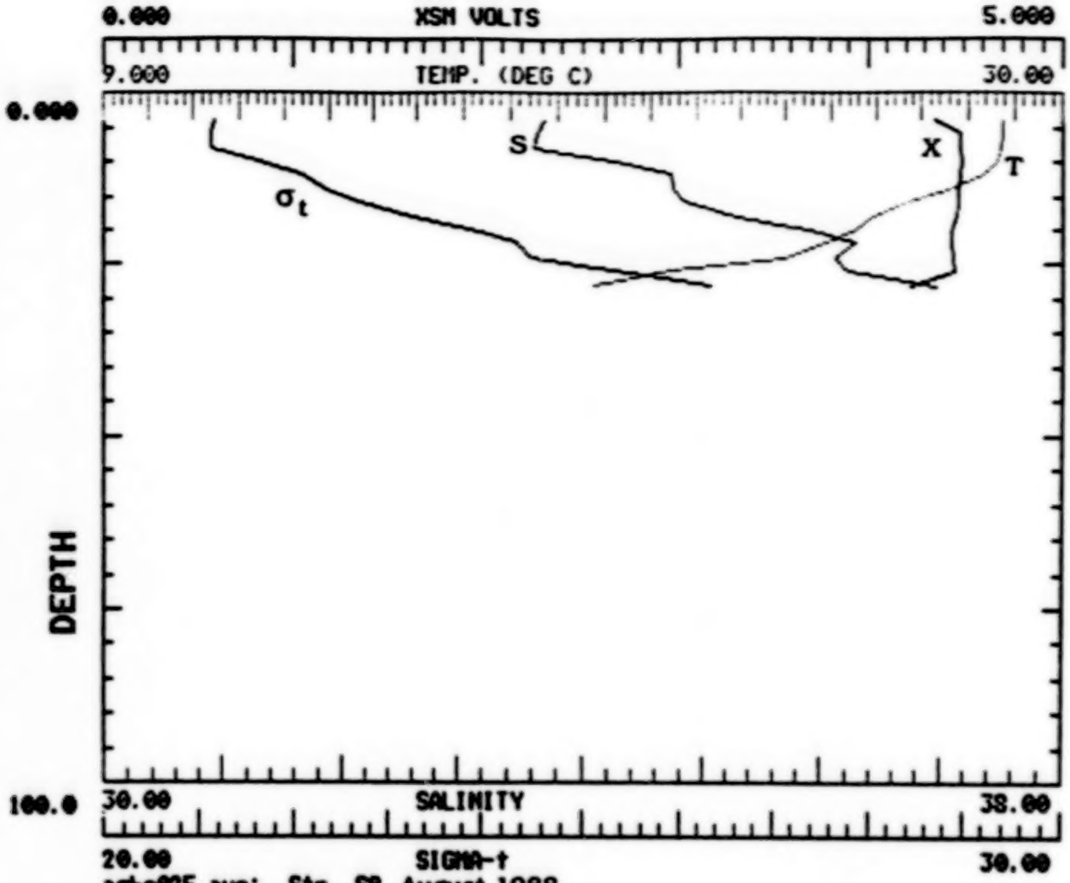
asbe022.avg: Stn. B August 1988



asbe023.avg: Stn. C August 1988



asbe024.avg: Stn. SS August 1988

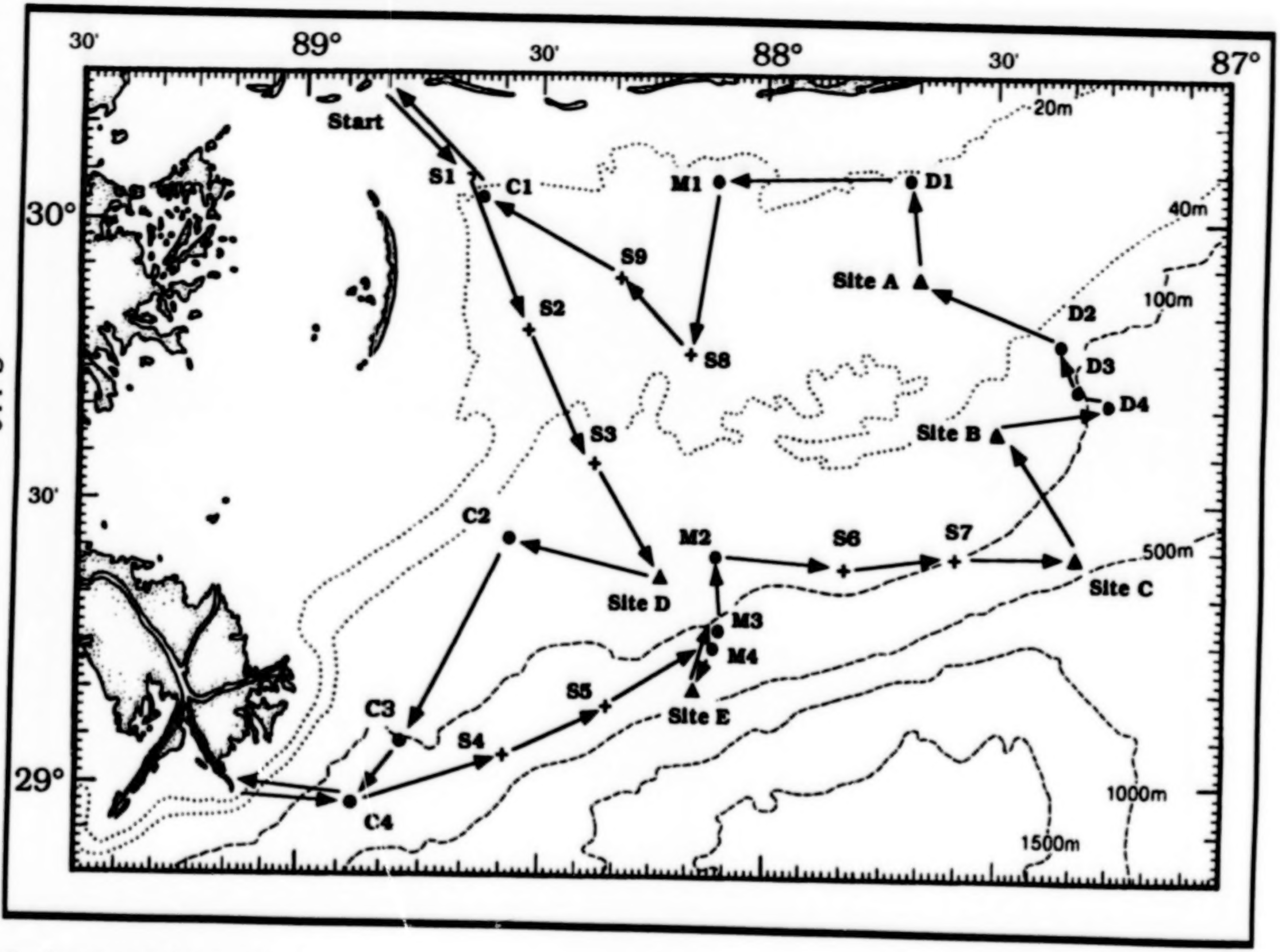


asbe025.avg: Stn. S9 August 1988

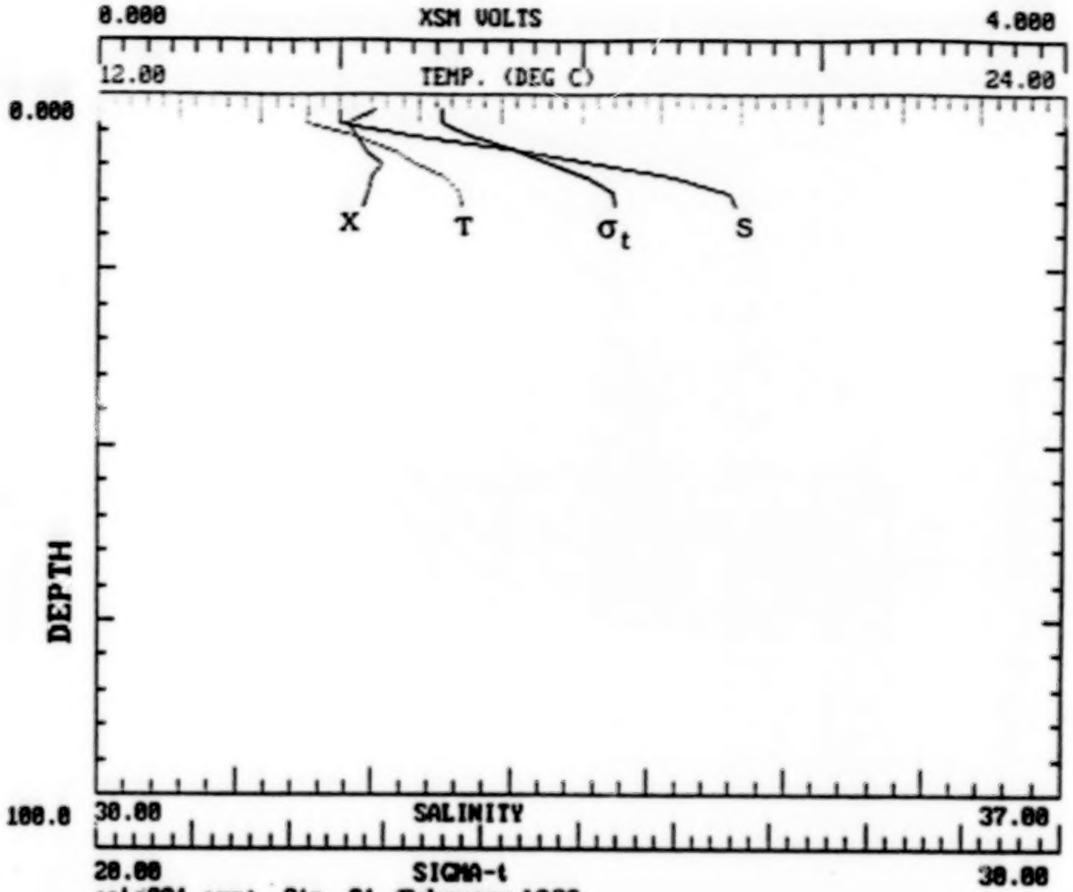
Cruise 4

STATION	DATE	TIME (GMT)	LATITUDE	LONGITUDE
S1	2/11/89	17:01	30°04.22' N	88°39.04' W
S2	2/11/89	19:07	29°48.41' N	88°32.83' W
S3	2/11/89	21:12	29°34.38' N	88°23.88' W
D	2/11/89	23:05*	29°21.17' N	88°15.91' W
C2A	2/12/89	13:52	29°27.16' N	88°34.22' W
C2B	2/12/89	14:10	29°27.04' N	88°33.77' W
C3	2/12/89	19:38	29°04.46' N	88°46.83' W
C4A	2/13/89	01:07	28°54.71' N	88°52.51' W
C4B	2/15/89	04:23	28°57.05' N	88°53.24' W
S4	2/15/89	07:30	29°02.72' N	88°36.40' W
S5	2/15/89	09:31	29°09.76' N	88°20.97' W
M4	2/15/89	15:43	29°15.40' N	88°06.64' W
E	2/15/89	19:37	29°09.72' N	88°10.76' W
M3	2/15/89	20:57	29°17.08' N	88°06.57' W
M2	2/16/89	04:45	29°24.30' N	88°06.52' W
S6	2/16/89	08:04	29°24.25' N	87°50.37' W
S7	2/16/89	09:56	29°24.23' N	87°35.09' W
C	2/16/89	15:17	29°23.95' N	87°20.86' W
B	2/16/89	20:19	29°37.45' N	87°31.58' W
D4	2/17/89	04:11	29°40.16' N	87°15.11' W
D3	2/17/89	05:23	29°43.33' N	87°20.54' W
D2	2/17/89	12:21	29°48.12' N	87°23.28' W
A	2/17/89	21:37	29°54.41' N	87°39.70' W
D1	2/17/89	05:36	30°05.75' N	87°41.58' W
M1	2/17/89	11:18	30°05.27' N	88°07.14' W
S8	2/18/89	16:13	29°46.15' N	88°11.07' W
S9	2/18/89	18:09	29°54.52' N	88°24.00' W
C1	2/18/89	20:12	30°04.19' N	88°37.86' W

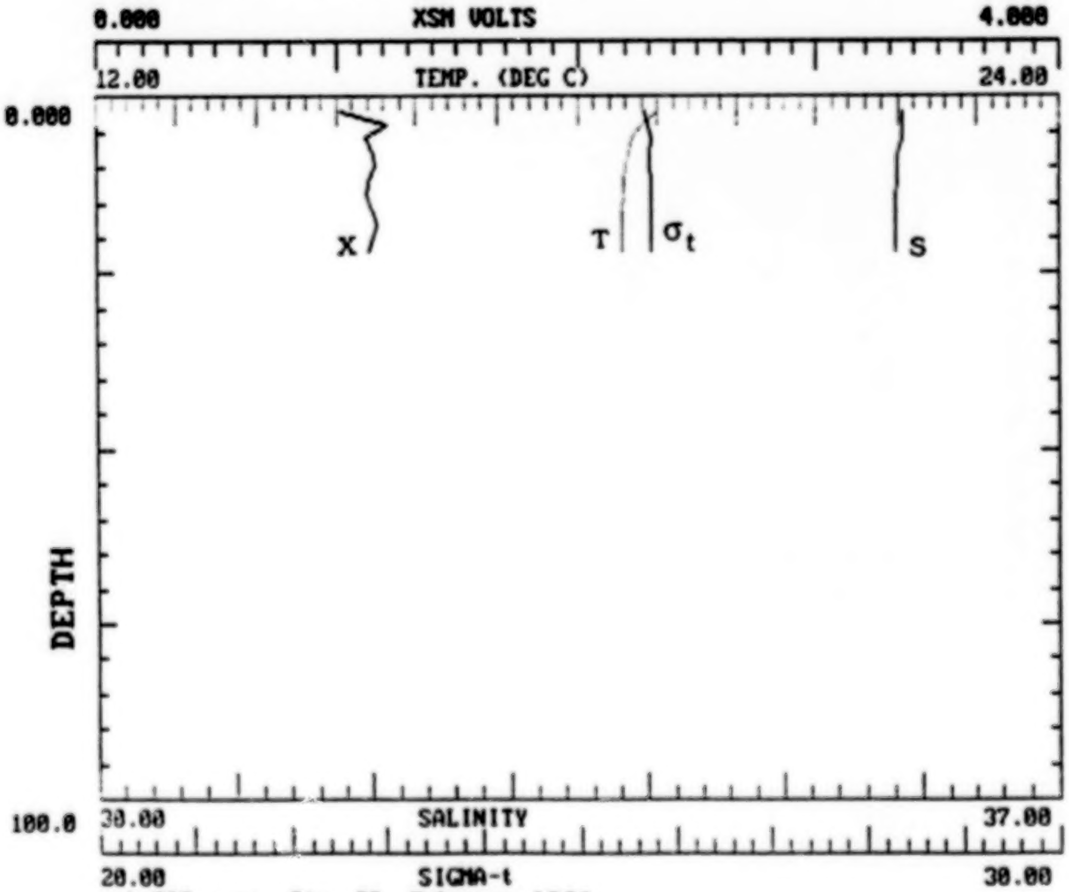
*No CTD data collected at this station because of electrical problems.



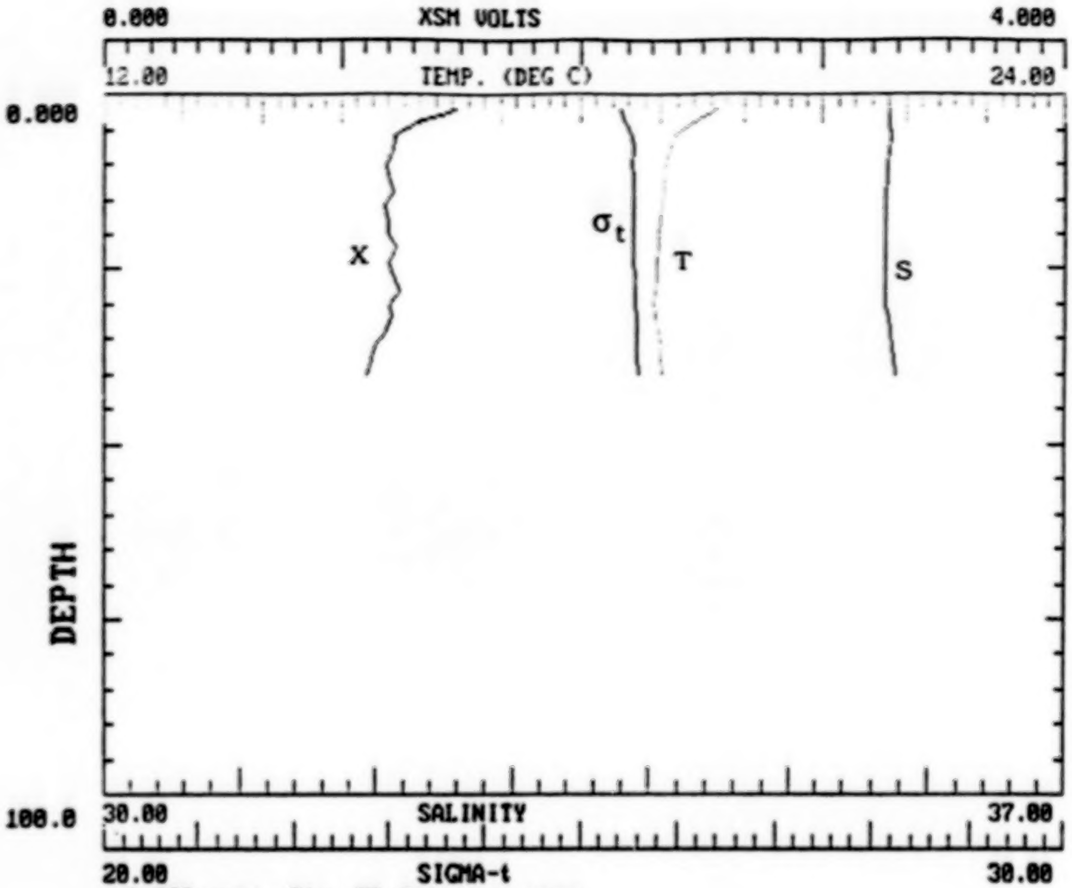
Cruise Track for Cruise 4



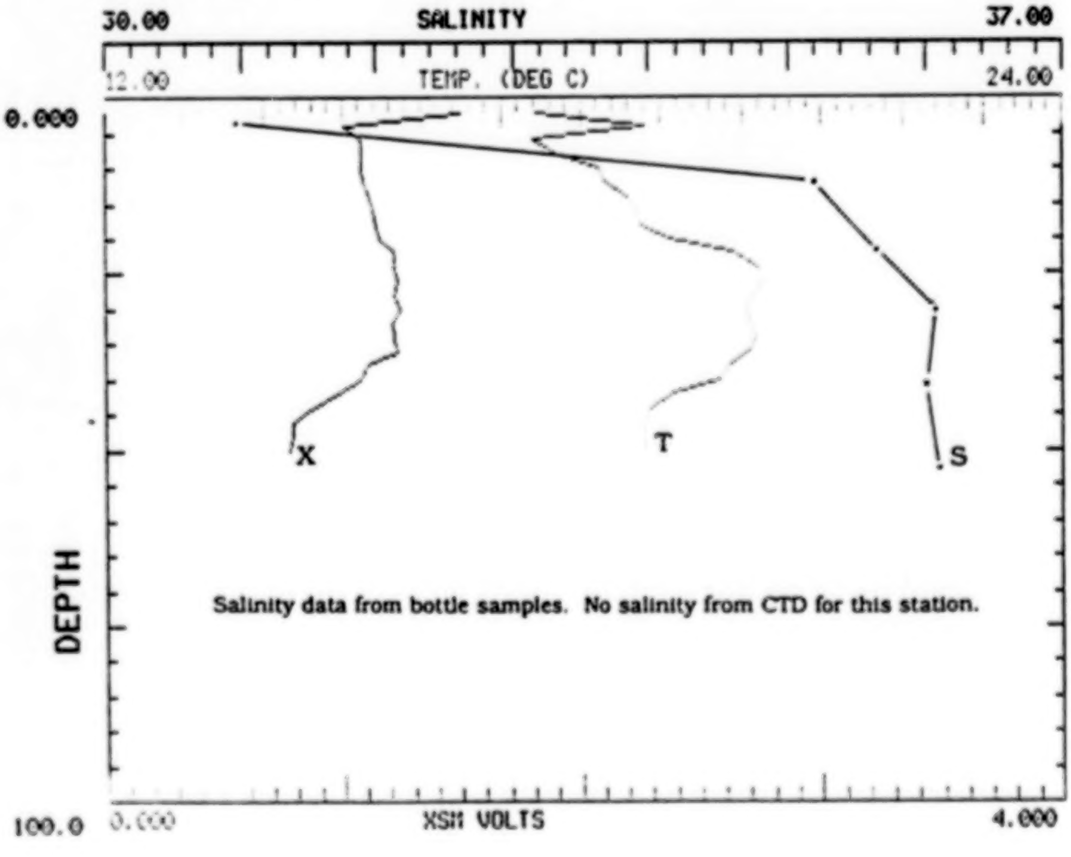
asbe001.avg: Stn. S1 February 1989



asbe002.avg: Stn. S2 February 1989

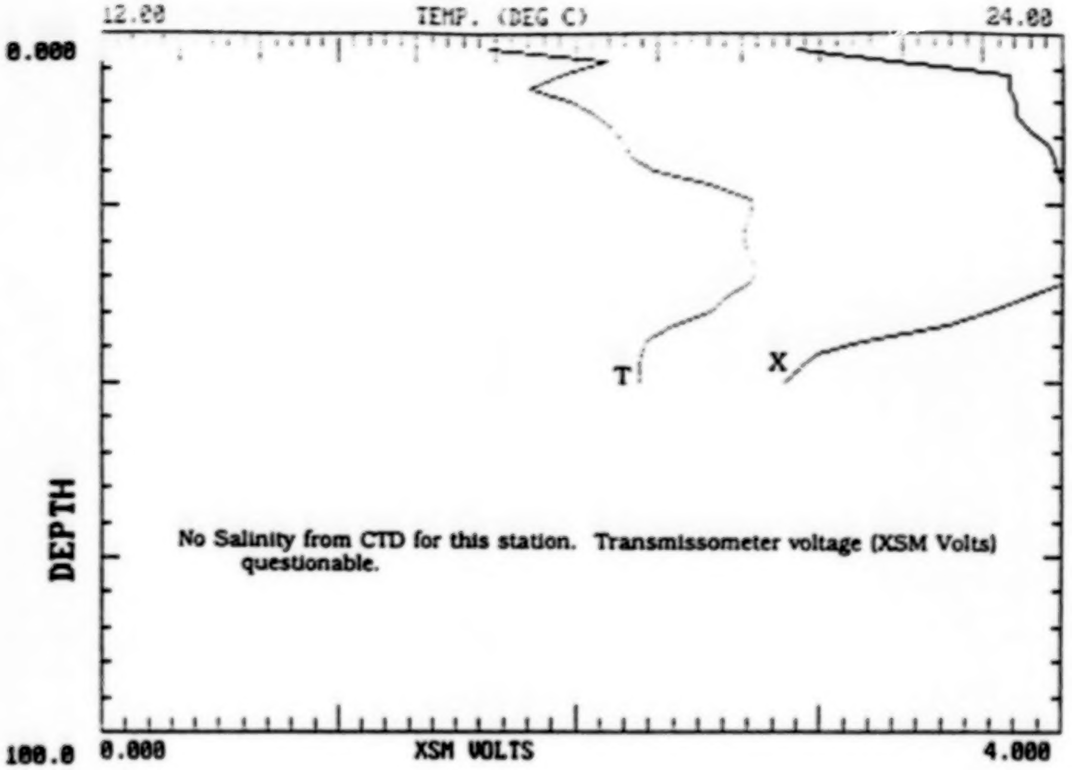


asbe003.avg: Stn. S3 February 1989



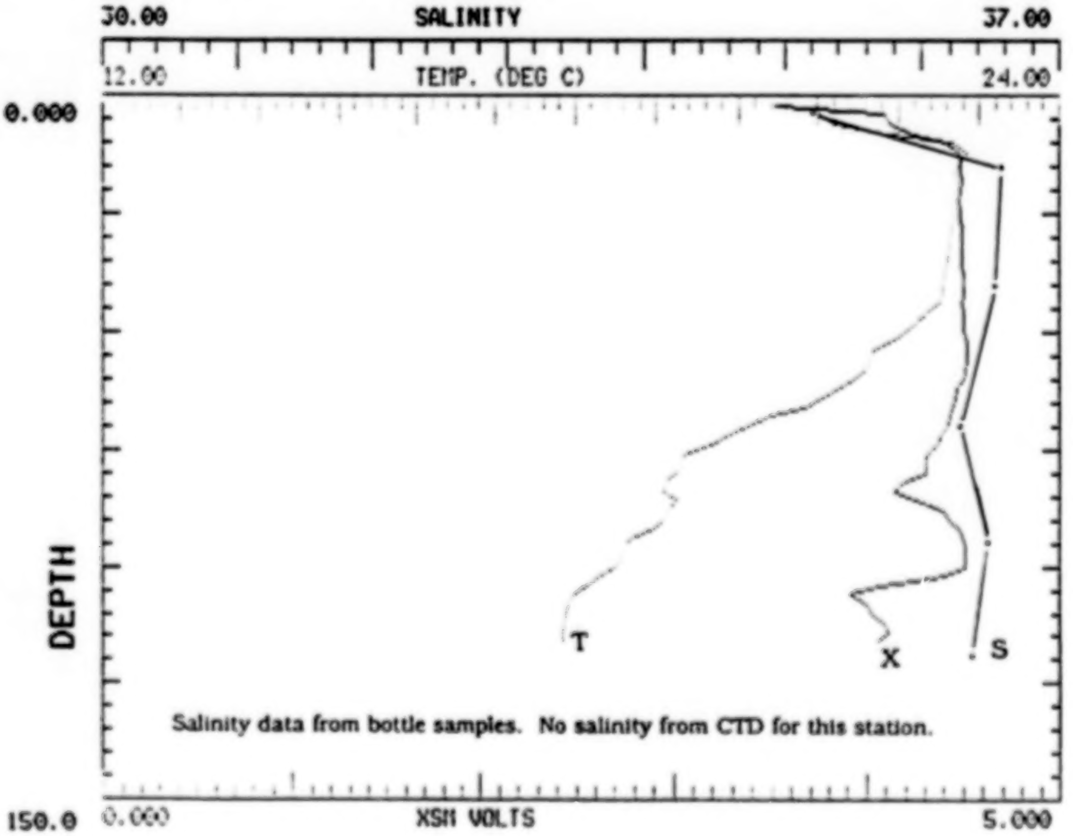
Salinity data from bottle samples. No salinity from CTD for this station.

sbe004.avg: Stn. C2a February 1989



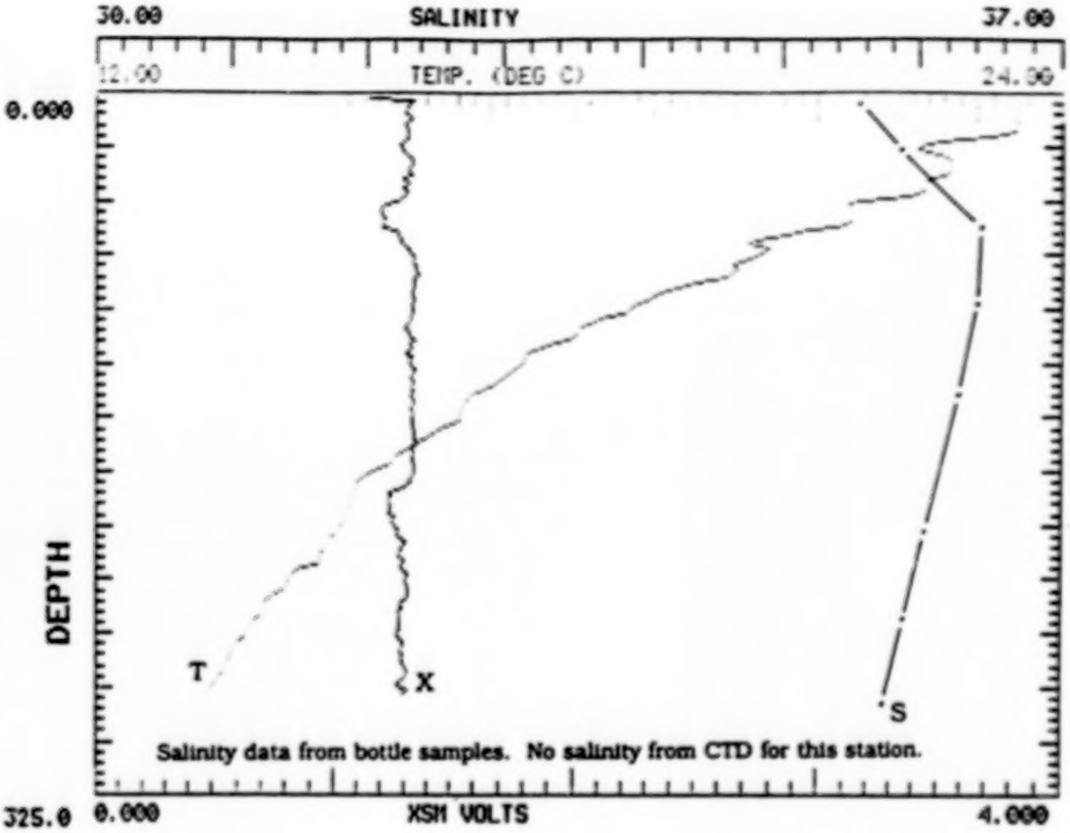
No Salinity from CTD for this station. Transmissometer voltage (XSM Volts) questionable.

sbe005.avg: Stn. C2b February 1989

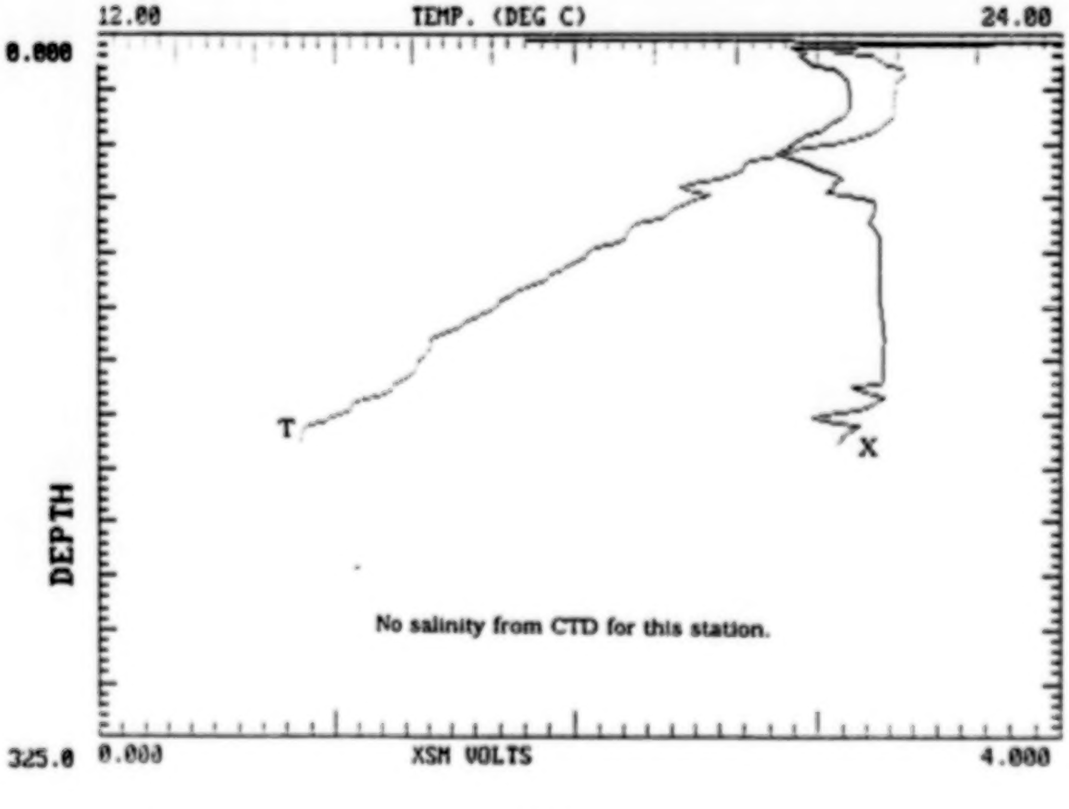


Salinity data from bottle samples. No salinity from CTD for this station.

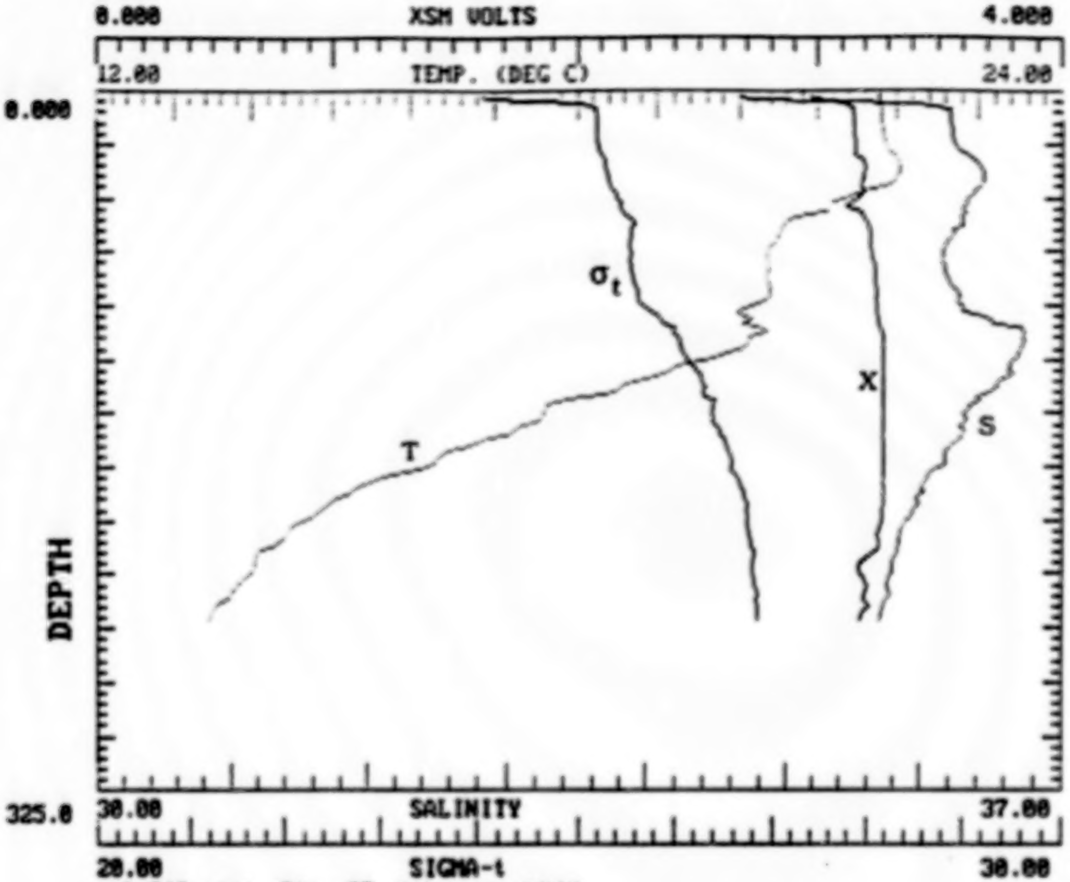
sbe006.avg: Stn. C3 February 1989



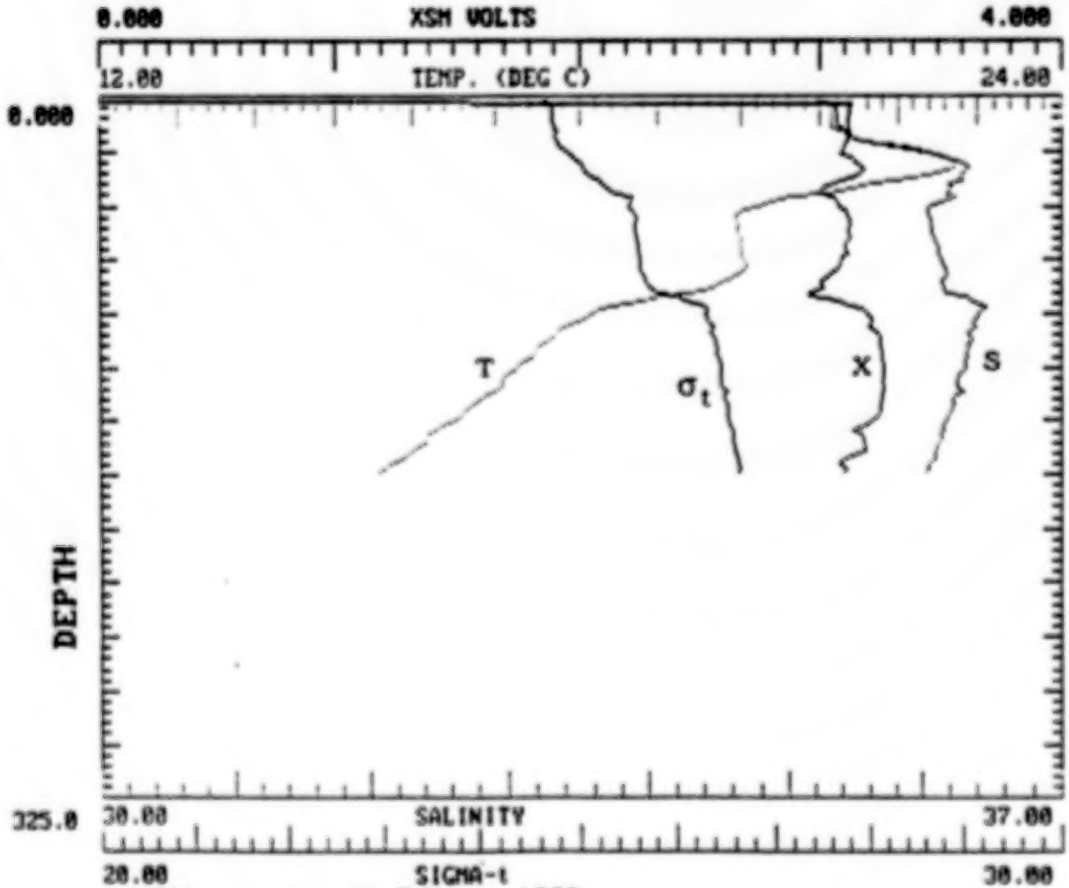
sbe007.avg: Stn. C4a February 1989



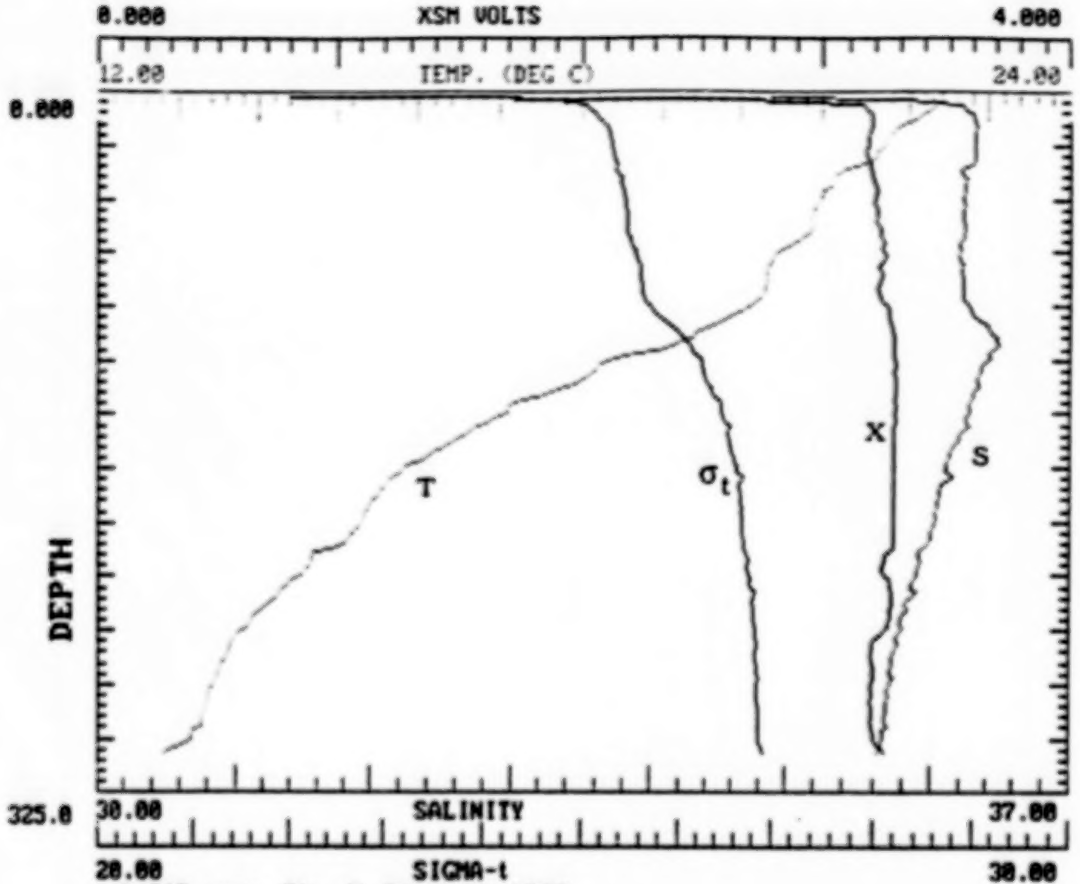
sbe008.avg: Stn. C4b February 1989



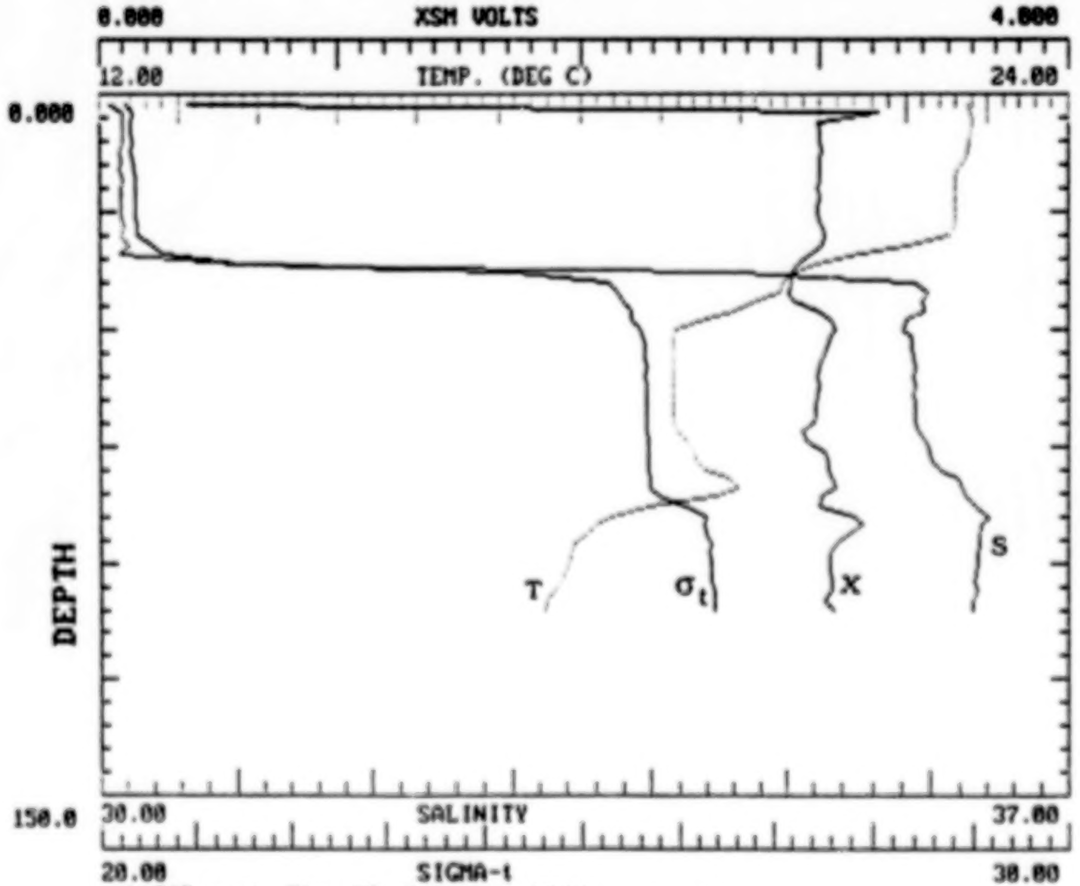
asbe010.avg: Stn. S5 February 1989



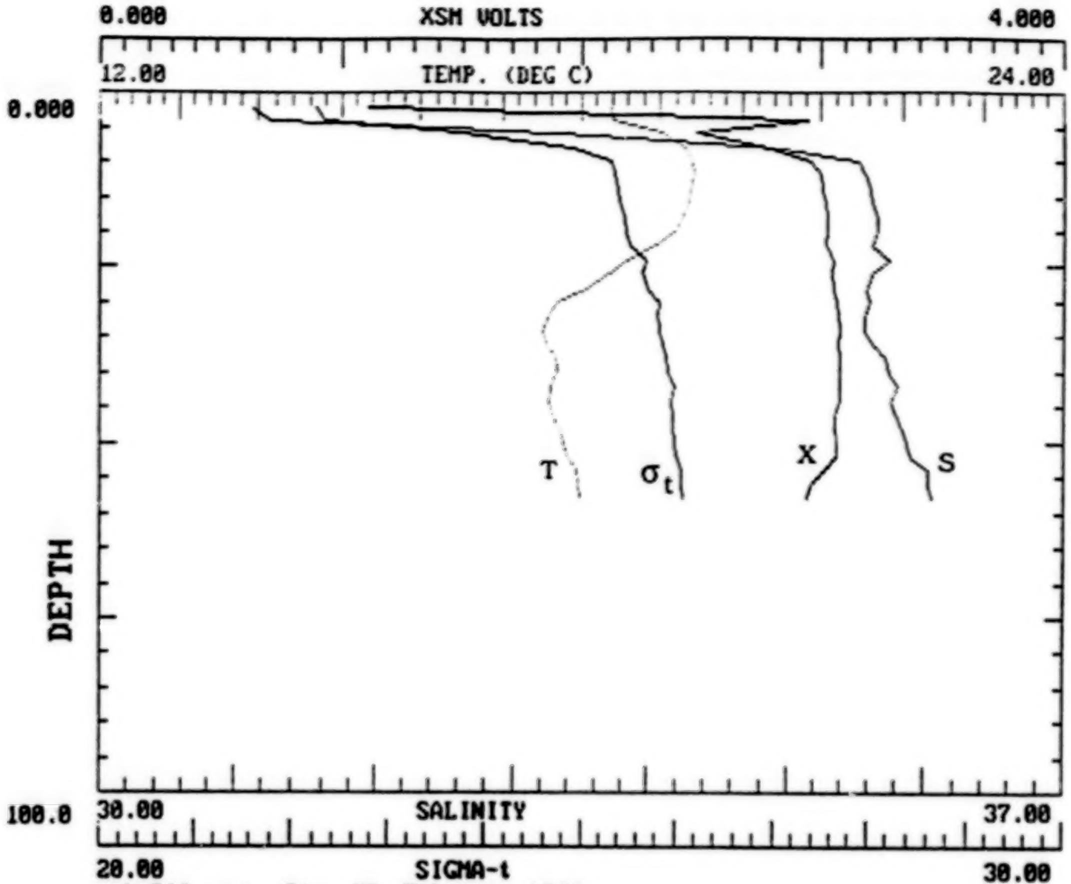
asbe011.avg: Stn. M4 February 1989



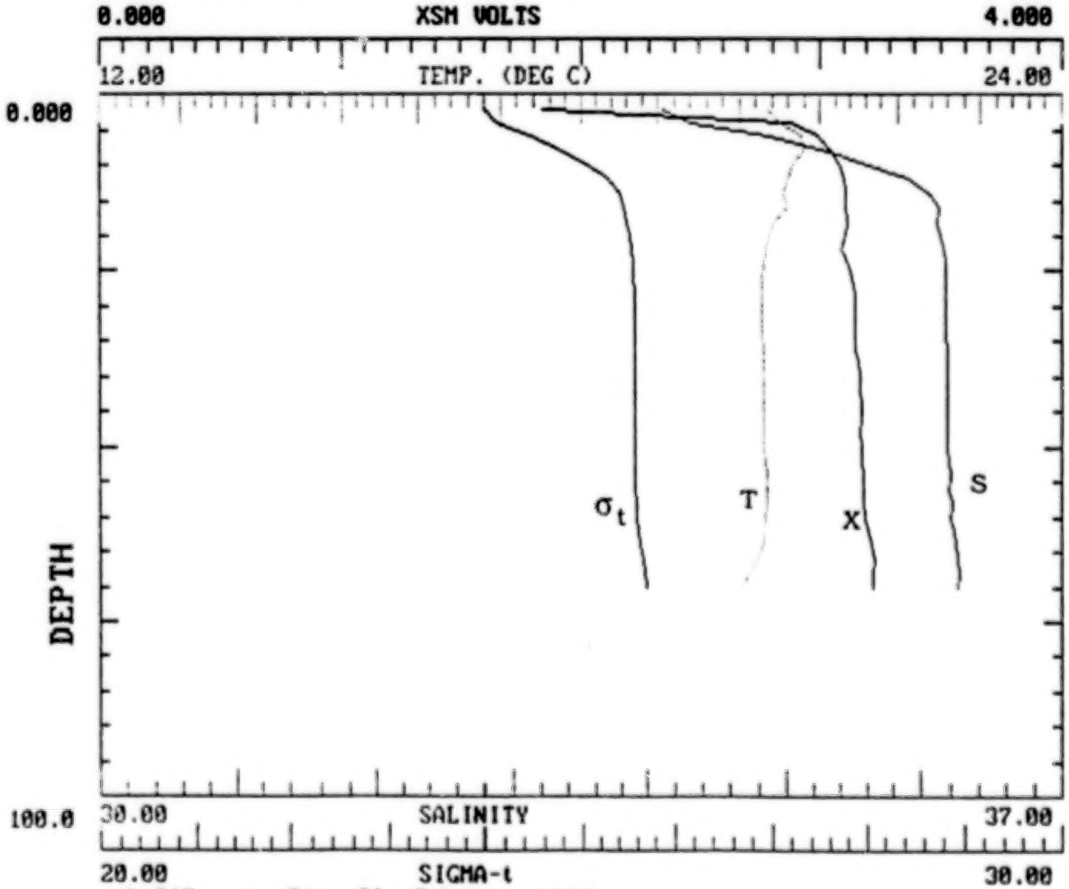
asbe012.avg: Stn. E February 1989



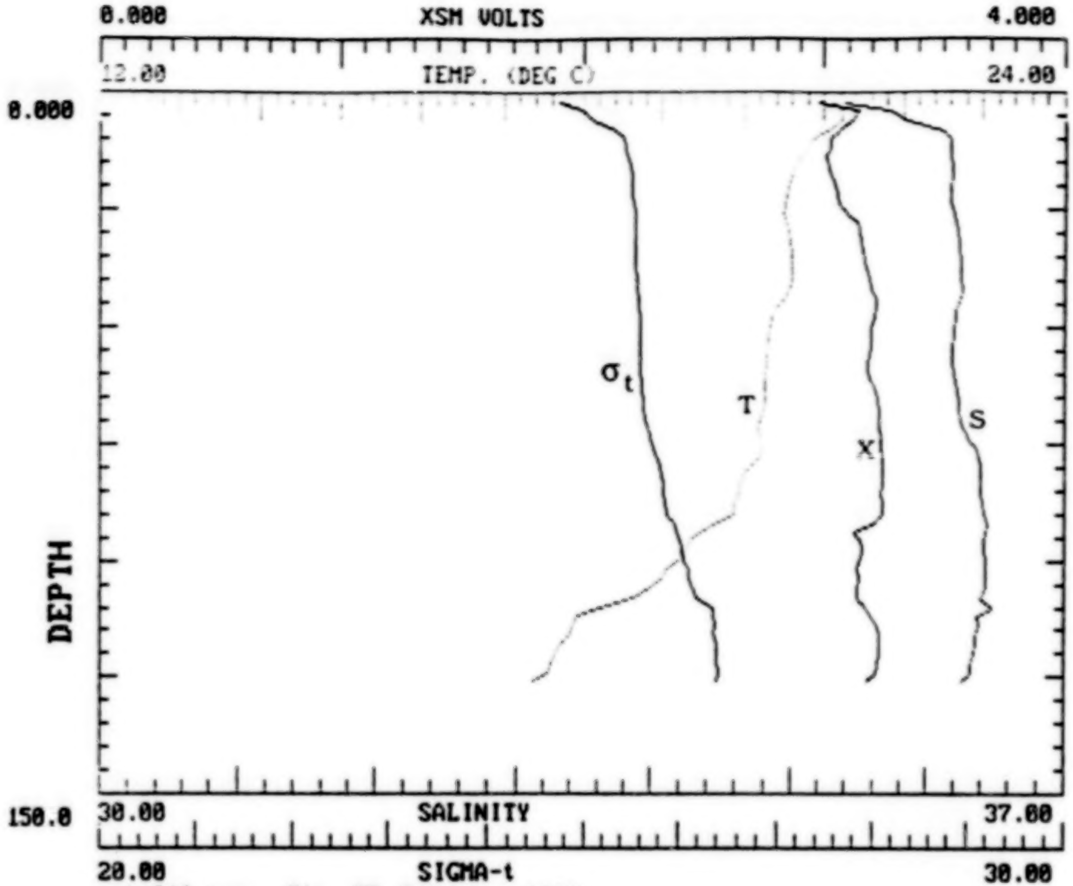
asbe013.avg: Stn. M3 February 1989



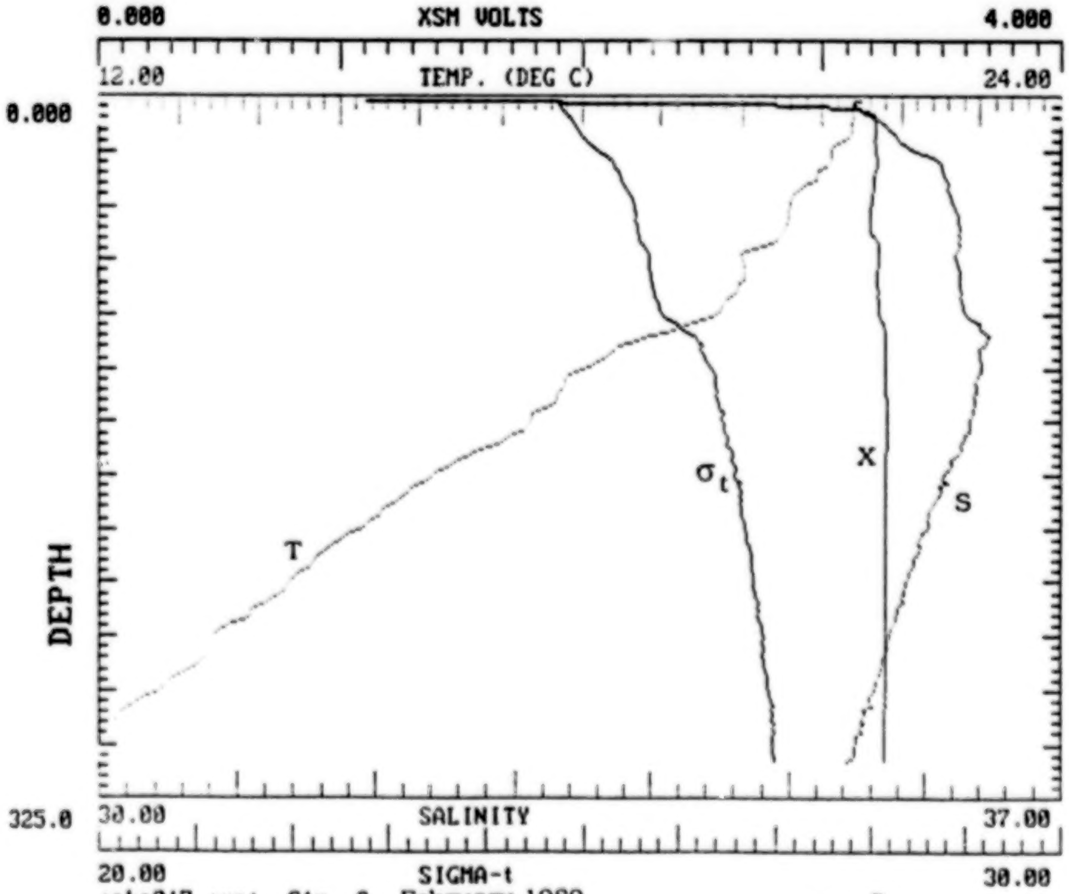
asbe014.avg: Stn. M2 February 1989



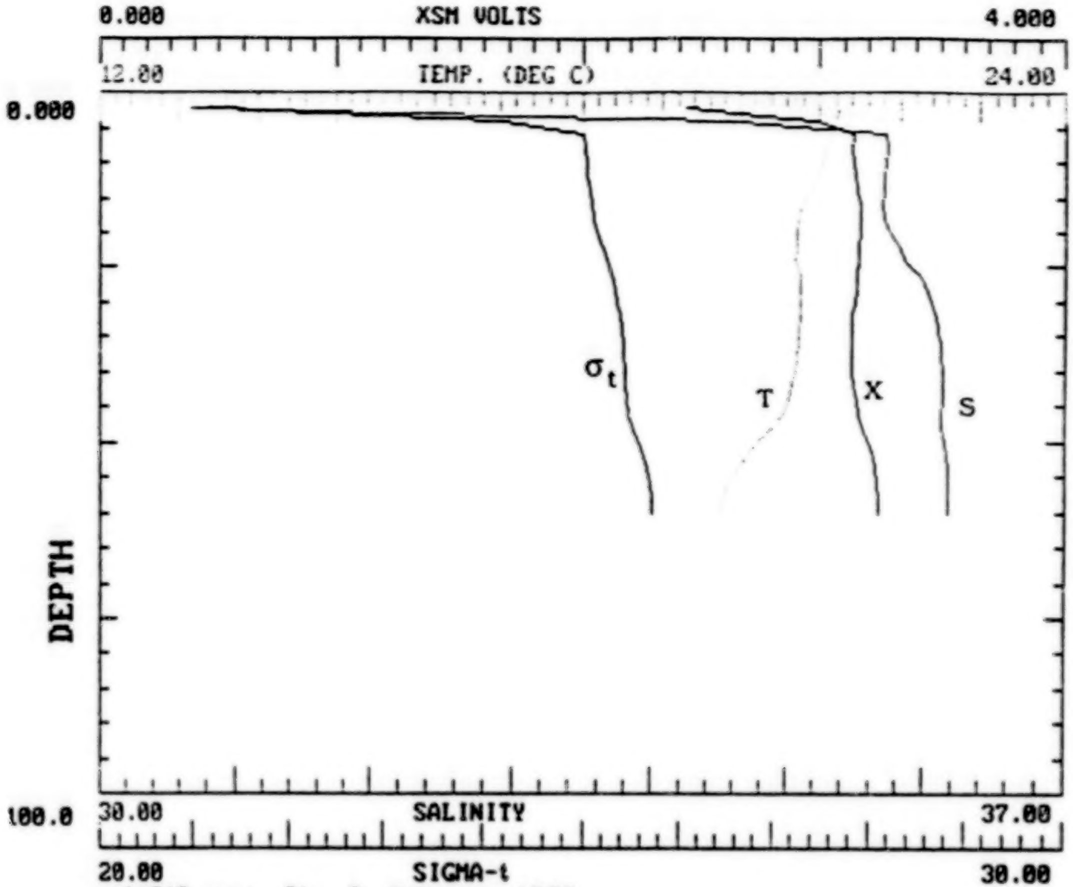
asbe015.avg: Stn. S6 February 1989



asbe016.avg: Stn. S7 February 1989



asbe017.avg: Stn. C February 1989



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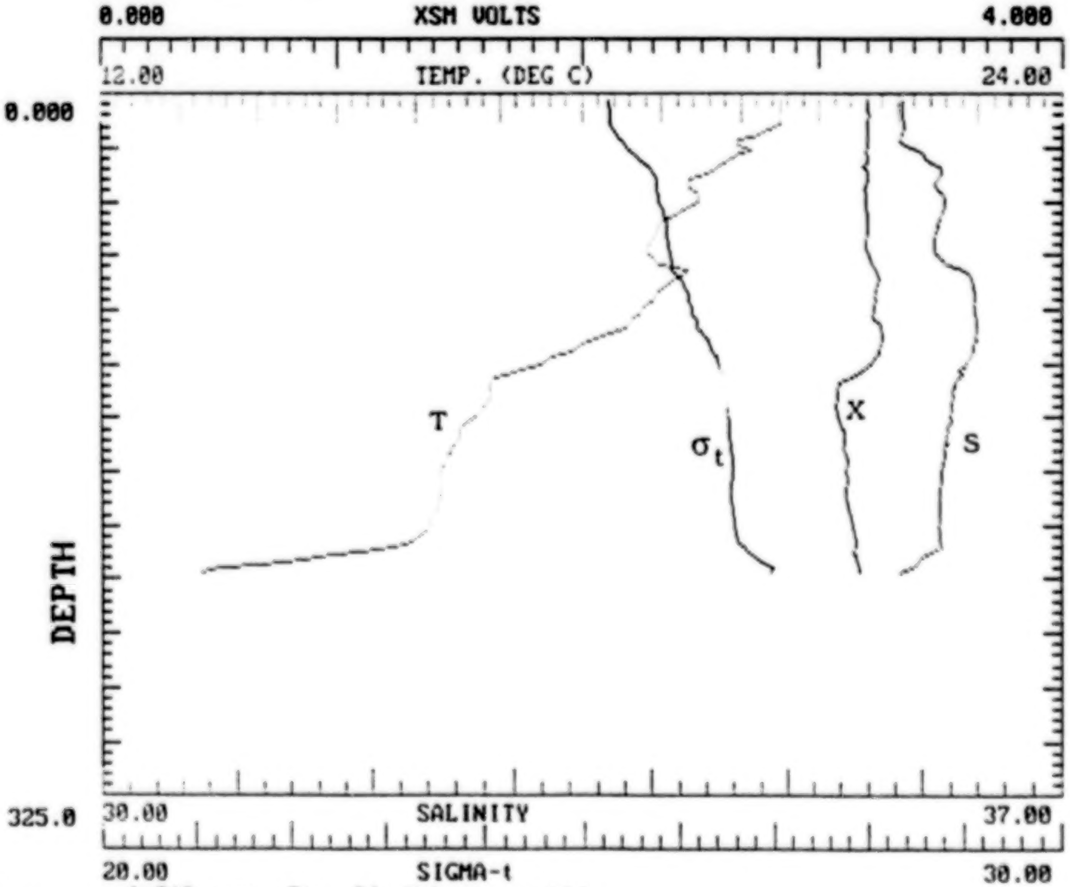

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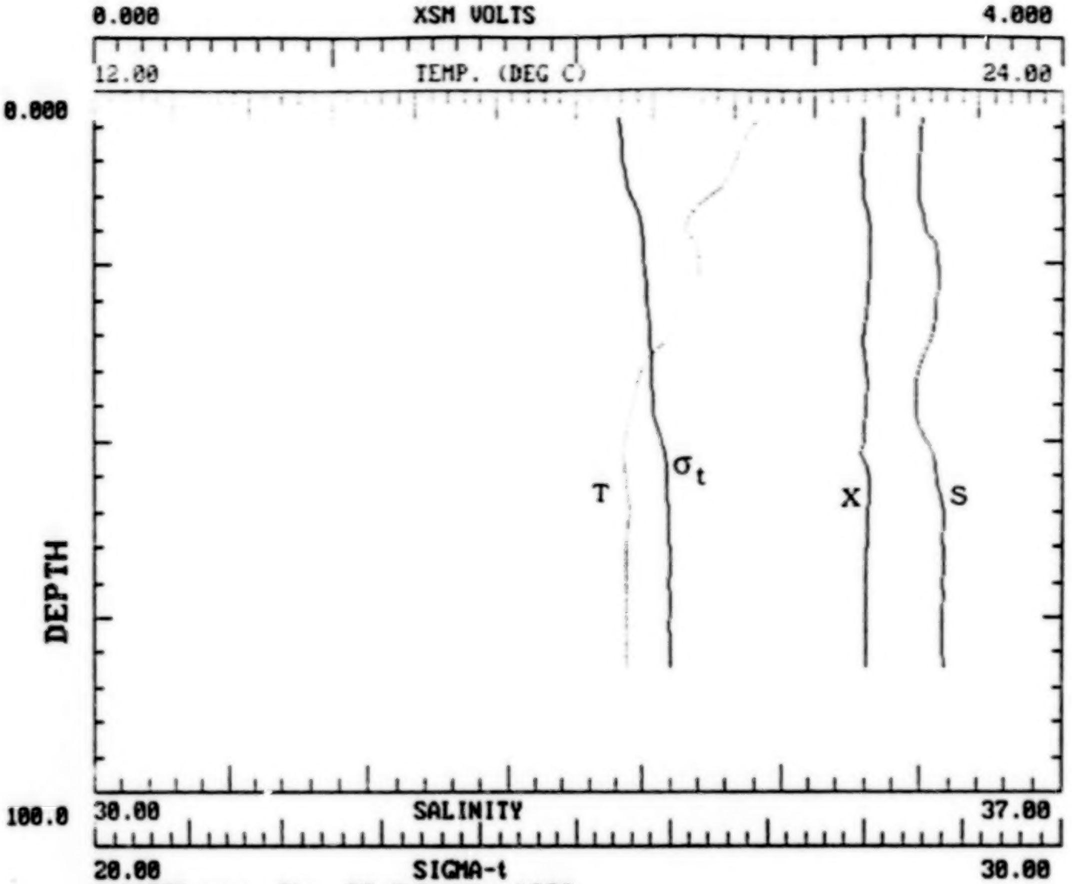

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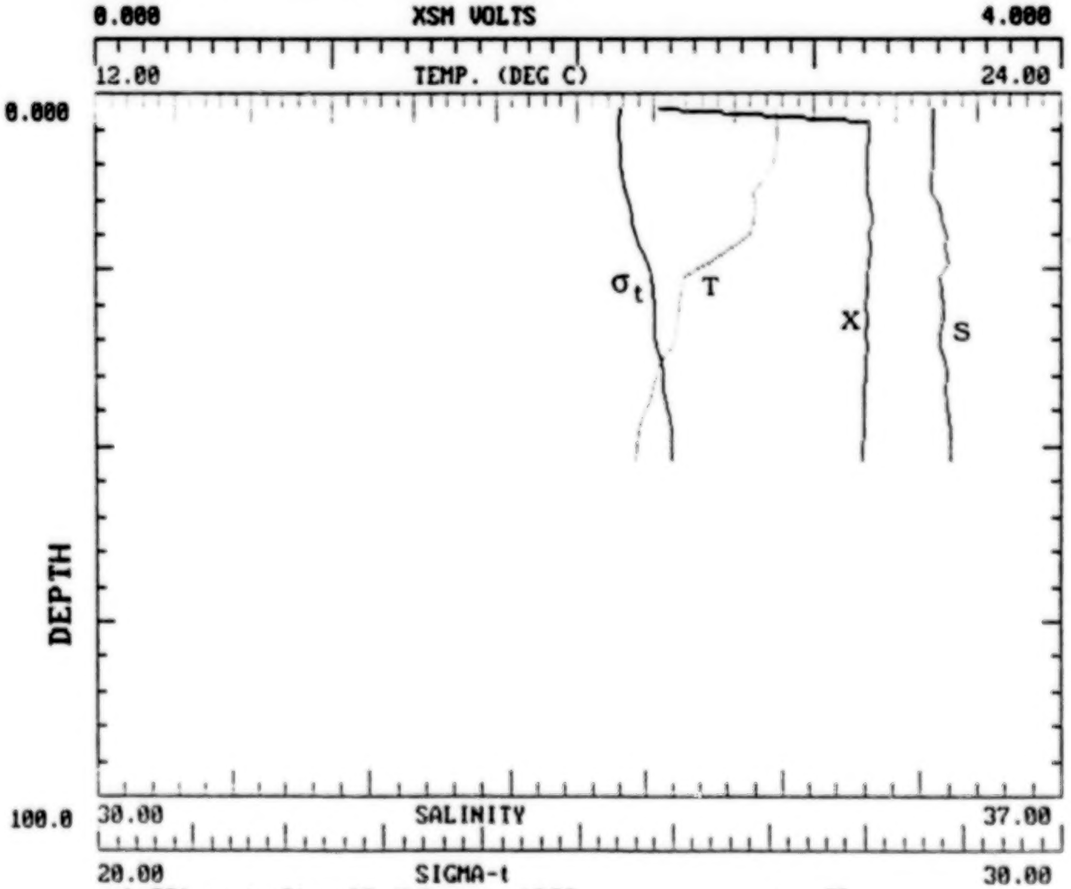
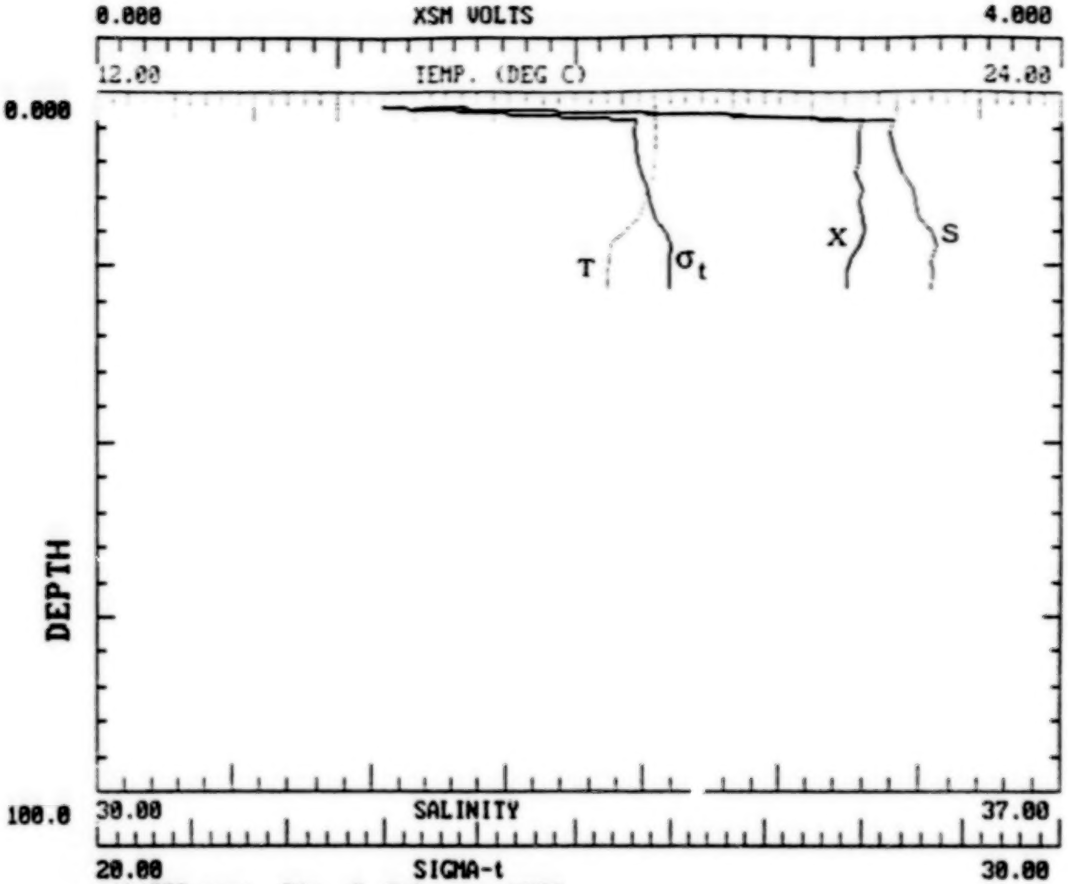
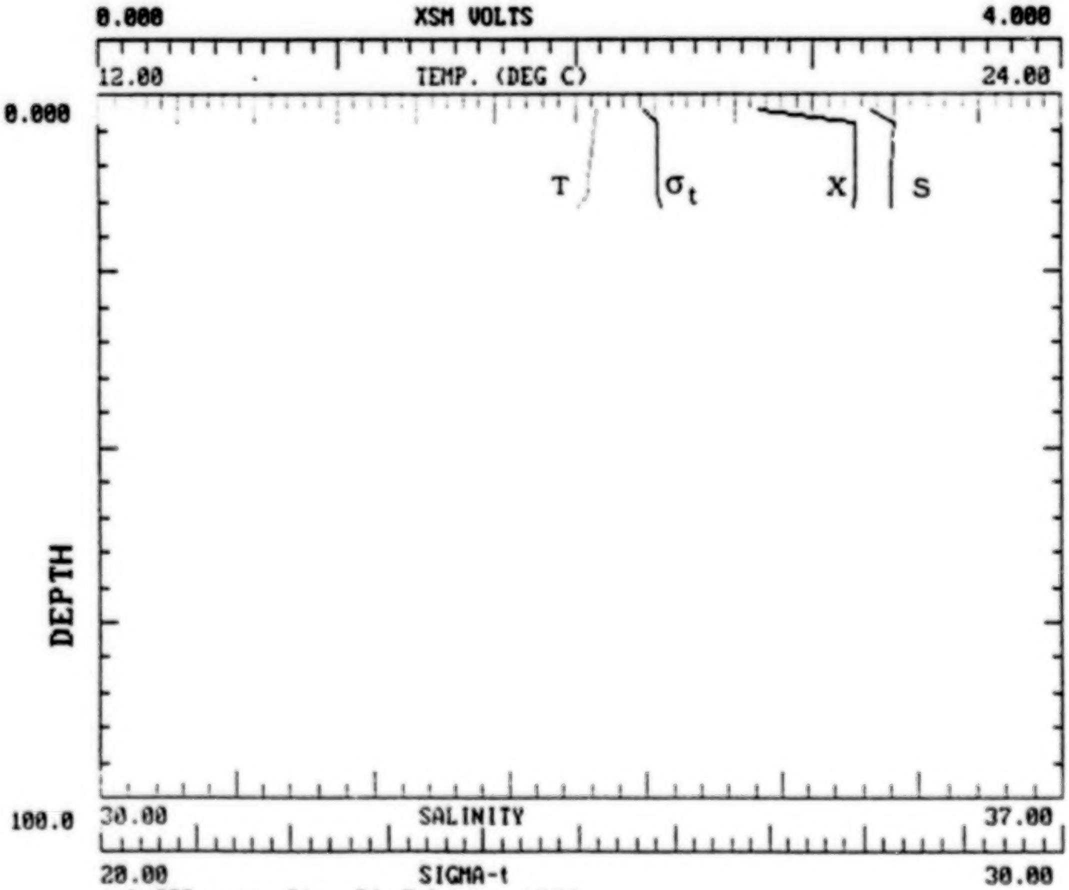


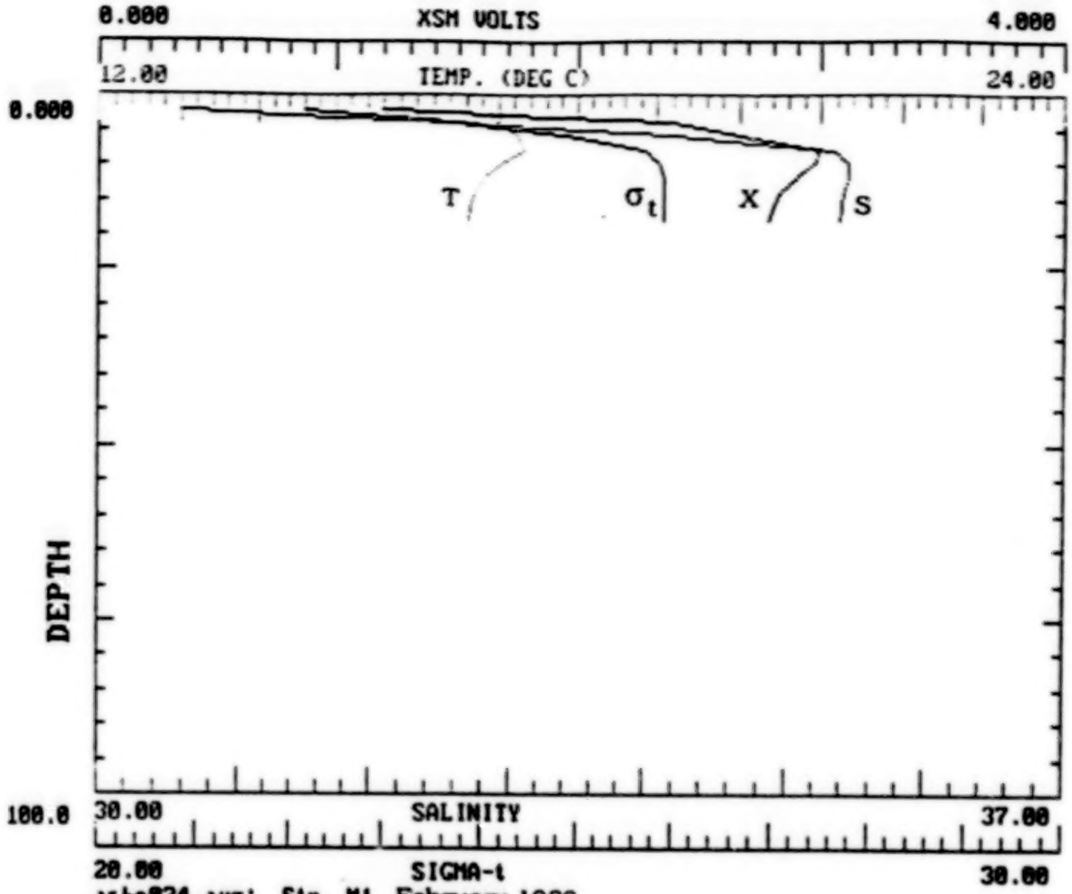
asbe021.avg: Stn. D2 February 1989



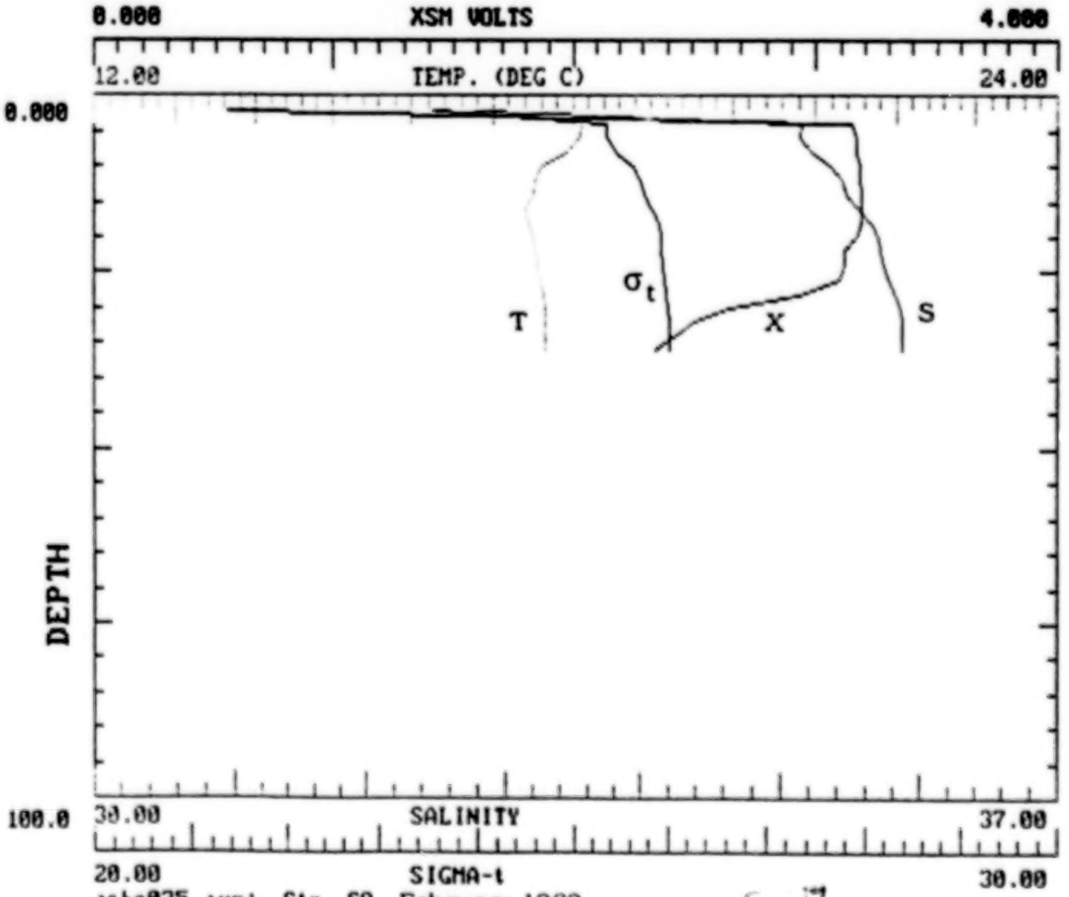
asbe022.avg: Stn. A February 1989



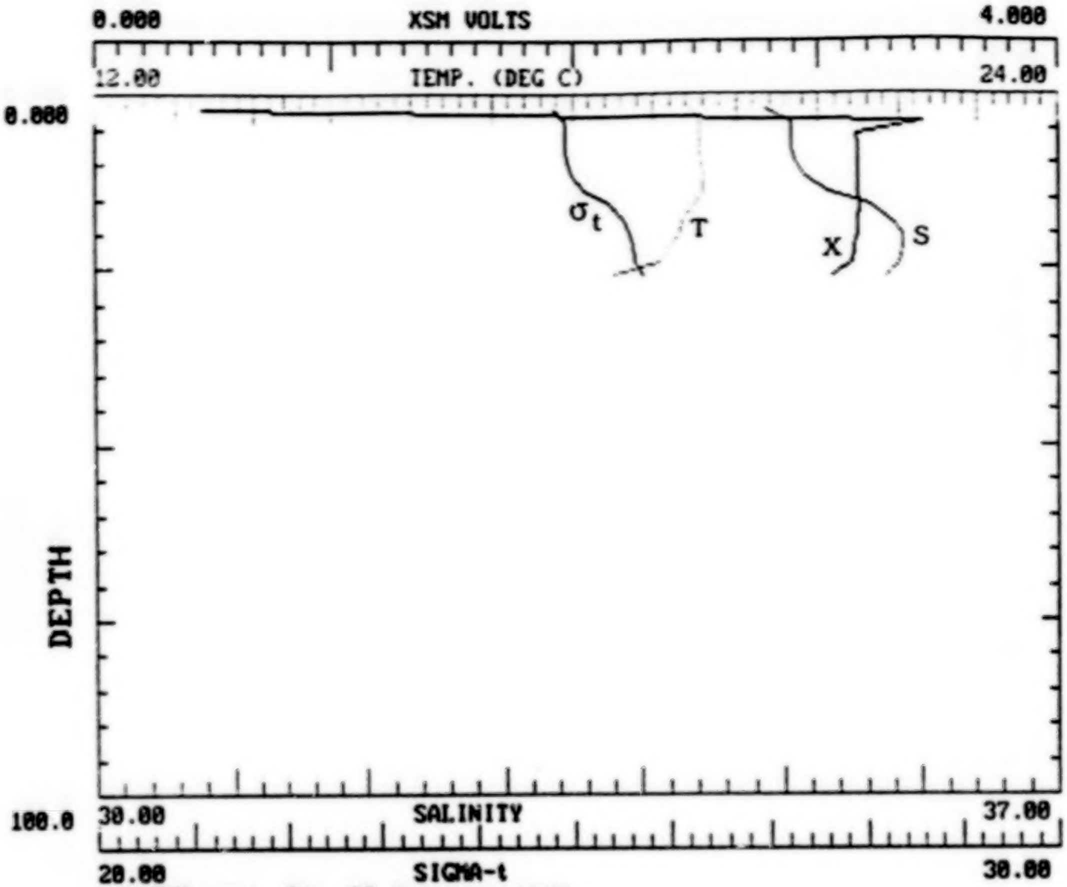
asbe023.avg: Stn. D1 February 1989



asbe024.avg: Stn. M1 February 1989



asbe025.avg: Stn. S8 February 1989



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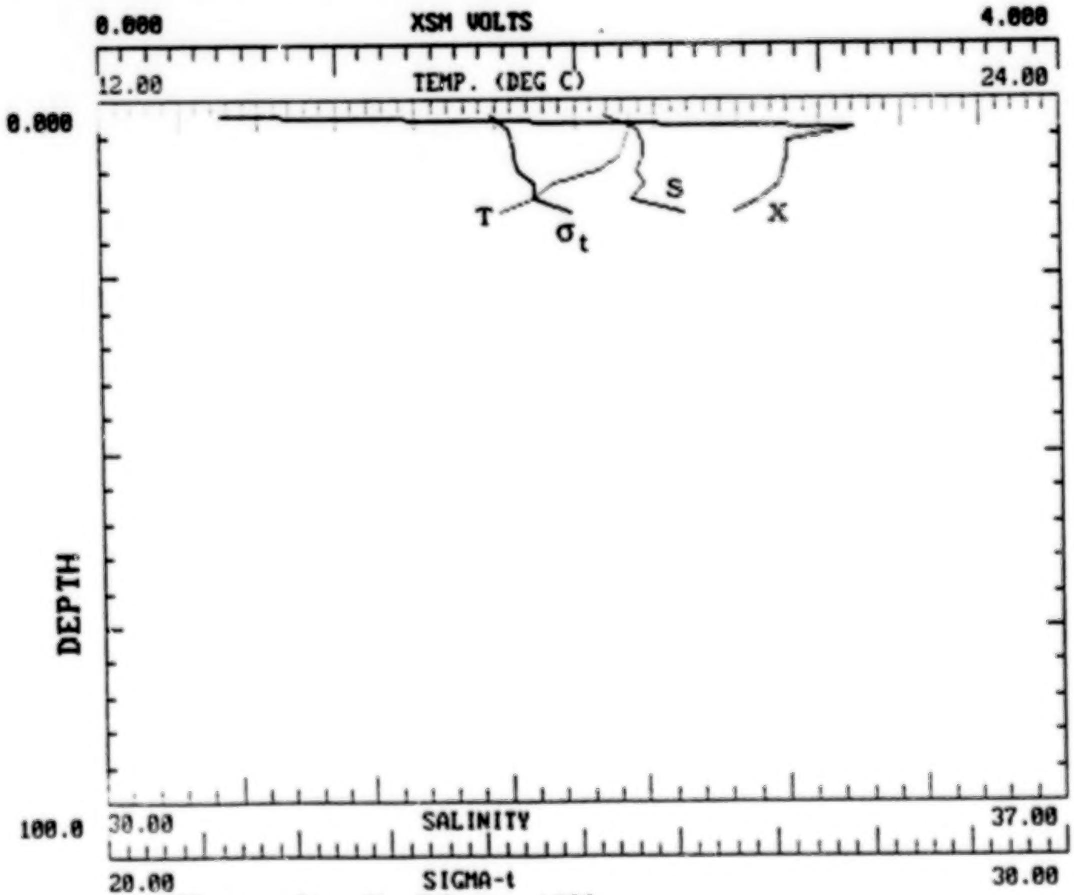

asbe027.avg: Stn. C1 February 1989

TIME SERIES DATA

Tables of Monthly Basic Statistics of Time Series Data

The locations of the five instrument moorings, A through E can be found in the section titled "CTD Graphs." Basic statistics for the time series, i.e., minimum, maximum, mean and standard deviation about the mean, are computed for monthly intervals using half-hourly values of the time series. Short gaps (on the order of a few hours) in the series are filled by linear interpolation. The interpolated values are included in the computation of basic statistics. Gaps on the order of days to weeks in duration, however, are not interpolated and are not included in the statistics. Thus, some intervals have fewer than the number of half-hours appropriate for a given month.

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PAGE

Site A Top (10 m/31 m)		Along Isobath (cm/s)					Cross Isobath (cm/s)					Temperature (°C)					Salinity (‰)				
Start	Stop	N	Min	Max	Mean	S.D.	N	Min	Max	Mean	S.D.	N	Min	Max	Mean	S.D.	N	Min	Max	Mean	S.D.
1/1/88 (0000)	1/31/88 (2330)	1486	-26.	15.	-2.7	8.1	1480	-14.	19.	2.9	5.2	1488	15.0	19.3	17.6	1.1					
2/1/88 (0000)	2/29/88 (2330)	1389	-32.	25.	1.7	9.1	1388	-21.	21.	-1.2	6.9	1392	13.9	17.2	15.6	0.9					
3/1/88 (0000) 3/16/88 (0000)	3/31/88 (2330)	1485	-20.	32.	3.6	9.4	1483	-26.	24.	-0.9	7.5	1488	15.3	18.8	17.3	0.7	 724	 34.2	 35.9	 35.4	 0.4
4/1/88 (0000)	4/30/88 (2330)	1439	-28.	47.	7.4	11.0	1424	-54.	36.	-1.8	11.0	1440	16.2	22.4	19.7	1.1	1440	32.2	36.5	35.2	0.5
5/1/88 (0000)	5/31/88 (2330)	1342	-20.	29.	6.4	10.2	1334	-31.	27.	-1.3	10.6	1488	18.8	24.0	21.7	1.0	1488	34.5	37.3	35.6	0.8
6/1/88 (0000)	6/30/88 (2330)	31	-23.	0	-14.1	5.6	31	0	16.	10.4	3.9	1440	21.3	27.6	25.2	0.9	1440	33.9	36.9	36.3	0.3
7/1/88 (0000)	7/31/88 (2330)	992	-45.	16.	-1.9	9.0	988	-35.	22.	2.4	8.9	1488	23.6	28.7	27.0	1.1	1488	30.9	37.0	35.8	1.0
8/1/88 (0000)	8/22/88 (1300)	704	-24.	29.	-1.6	9.6	705	-37.	17.	-0.4	9.0	1035	23.2	29.5	27.0	1.6	1035	30.8	36.9	35.2	0.6
2/18/89 (0430)	2/28/89 (2330)	519	-17.	16.	1.3	8.2	519	-14.	10.	-0.5	5.0	519	15.7	19.9	18.3	1.3	519	34.3	36.0	35.5	0.6
3/1/89 (0000)	3/31/89 (2330)	1488	-30.	32.	-2.3	9.0	1488	-26.	31.	0.9	8.4	1488	16.1	20.3	17.9	1.0	1488	32.8	36.0	34.9	0.7
4/1/89 (0000)	4/30/89 (2330)	1440	-29	32.	2.0	10.9	1440	-30.	30.	-2.9	9.7	1440	19.4	23.2	20.4	0.9	1440	29.1	35.3	33.3	1.5
5/1/89 (0000)	5/31/89 (2330)	1488	-25.	35.	4.1	9.7	1488	-29.	29.	1.2	8.0	1488	21.2	27.4	24.1	1.5	1488	29.9	34.7	32.3	0.9
6/1/89 (0000)	6/19/89 (1900)	903	-29.	31.	-3.4	8.2	903	-41.	19.	-0.6	8.2	903	23.5	28.0	26.6	0.9	903	25.3	34.8	31.2	1.7

Site A Bottom (28 m/ 31 m)		Along Isobath (cm/s)					Cross Isobath (cm/s)					Temperature (°C)					Salinity (‰)				
Start	Stop	N	Min	Max	Mean	S.D.	N	Min	Max	Mean	S.D.	N	Min	Max	Mean	S.D.	N	Min	Max	Mean	S.D.
12/21/87 (1330)	12/31/87 (2330)	501	-12.	14.	-1.7	8.2	501	-11.	12.	0.2	3.6	501	17.7	19.5	18.6	0.5	501	35.9	36.3	36.1	0.3
1/1/88 (0000)	1/31/88 (2330)	1488	-21.	12.	-4.9	7.7	1488	-9.	17.	0.7	4.3	1488	15.5	19.0	17.2	0.9	1488	35.7	36.4	36.1	<0.0
2/1/88 (0000)	2/29/88 (2330)	1392	-18.	19.	1.1	7.3	1392	-15.	22.	0.5	5.0	1392	14.6	16.9	15.8	0.5	1392	35.3	36.2	35.8	0.1
3/1/88 (0000)	3/31/88 (2330) 3/16/88 (1300)	1488	-22.	21.	1.7	8.1	1488	-13.	18.	1.1	4.8	1488	15.3	18.7	17.3	1.4	 747	 35.1	 36.4	 35.5	 0.4
4/1/88 (0000)	4/30/88 (2330)	1440	-22.	30.	3.5	8.9	1440	-30.	26.	2.1	6.5	1440	17.8	19.8	18.9	0.7					
5/1/88 (0000)	5/31/88 (2330)	1488	-19.	15.	2.5	5.5	1488	-12.	14.	0.2	3.8	1488	18.5	19.9	19.1	0.5					
6/1/88 (0000)	6/30/88 (2330)	1440	-27.	16.	0.8	7.2	1440	-14.	13.	0.3	4.6	1440	18.7	21.3	20.3	0.6					
7/1/88 (0000)	7/31/88 (2330)	1488	-22.	16.	2.1	5.9	1488	-13.	14.	-0.6	4.6	1488	20.1	21.8	20.9	0.5					
8/1/88 (0000)	8/22/88 (1130)	1032	-28.	21.	1.0	5.5	1031	-16.	16.	0.5	4.3	1032	20.8	25.0	21.8	0.7					

Site B Top (10 m/60 m)		Along Isobath (cm/s)					Cross Isobath (cm/s)					Temperature (°C)					Salinity (‰)				
Start	Stop	N	Min	Max	Mean	S.D.	N	Min	Max	Mean	S.D.	N	Min	Max	Mean	S.D.	N	Min	Max	Mean	S.D.
1/1/88 (0000)	1/31/88 (2330)	1488	-38.	31.	2.1	12.2	1488	-24.	21.	0.9	8.7	1488	17.0	20.2	18.9	0.7	1488	35.3	36.3	35.9	<0.0
2/1/88 (0000)	2/29/88 (2330)	1392	-20.	39.	6.8	10.7	1392	-25.	26.	1.0	8.6	1392	14.9	19.3	17.2	1.1	1392	34.4	36.2	35.5	0.3
3/1/88 (0000)	3/31/88 (2330)	903	-30.	35.	-0.6	10.7	903	-22.	30.	-0.2	8.6	903	16.2	20.5	17.7	1.0	187	34.8	35.7.	35.3	0.3
4/1/88 (0000)	4/30/88 (2330)	1440	-37.	36.	-1.5	11.2	1440	-36.	50.	-0.4	12.2	1440	18.4	22.3	20.0	1.1					
5/1/88 (0000)	5/31/88 (2330)	1488	-29.	49.	10.9	12.2	1488	-70.	21.	-7.4	12.1	1488	20.7	24.2	22.5	0.8					
6/1/88 (0000)	6/30/88 (2330)	1440	-6.	48.	11.1	9.0	1440	-38.	18.	-3.6	8.8	1440	23.1	27.3	25.4	0.8					
7/1/88 (0000)	7/31/88 (2330)	1488	-5.	31.	8.5	6.6	1488	-28.	10.	-4.9	7.3	1488	25.2	29.3	27.4	0.7					
8/1/88 (0000)	8/31/88 (2330)	1423	-13.	41.	14.1	10.9	1423	-35.	16.	-8.7	9.0	1423	25.6	29.5	28.1	0.6	372	30.2	36.7	35.4	0.8
9/1/88 (0000)	9/30/88 (2330)	1440	-74.	15.	20.6	19.4	1440	-36.	46.	0.8	12.4	1440	27.2	30.0	28.2	0.5	1440	29.7	37.2	35.1	0.7
10/1/88 (0000)	10/31/88 (2330)	1488	-40.	5	-11.2	7.7	1488	-19.	34.	-0.3	8.0	1488	24.4	28.2	25.7	1.1	1488	29.0	36.7	35.7	0.9
11/1/88 (0000)	11/30/88 (2330)	1440	-29.	16.	-2.5	8.6	1440	-27.	10.	-3.8	6.0	1440	22.4	24.8	23.5	0.6	1440	30.1	36.5	36.2	0.1
12/1/88 (0000)	12/31/88 (2330)	1488	-14.	16.	0.3	4.9	1488	-17.	13.	0.5	4.5	1488	18.2	22.8	21.3	0.7	1488	33.0	36.7	36.2	<0.0
1/1/89 (0000)	1/13/89 (2100)	619	-16.	28.	2.4	8.6	619	-22.	9	-1.2	6.8	619	20.2	21.7	20.9	0.5	619	34.9	36.1	35.7	0.3
2/16/89 (2000)	2/28/89 (2330)	584	-20.	20.	5.1	7.8	584	-33.	13.	-4.6	7.5	584	17.8	21.8	19.9	1.2	584	35.3	35.9	35.6	0.3
3/1/89 (0000)	3/31/89 (2330)	1488	-29.	46.	0.3	13.8	1488	-38.	44.	1.1	11.8	1488	16.5	21.1	19.5	1.0	1488	32.6	35.9	35.1	0.4
4/1/89 (0000)	4/30/89 (2330)	1440	-33.	28.	3.4	9.5	1440	-22.	36.	0.7	8.0	1440	19.8	22.8	21.0	0.6	1440	33.9	35.7	34.8	0.2
5/1/89 (0000)	5/31/89 (2330)	1488	-21.	28.	1.3	6.5	1488	-30.	20.	-0.4	6.1	1488	21.0	25.6	23.4	1.0	1488	26.7	36.3	35.3	0.9
6/1/89 (0000)	6/21/89 (1200)	985	-29.	45.	2.2	9.6	985	-39.	34.	-0.4	9.0	985	23.8	27.9	26.3	1.0	985	32.2	36.0	34.6	1.0

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Site B Bottom (57 m/ 60 m)		Along Isobath (cm/s)					Cross Isobath (cm/s)					Temperature (°C)					Salinity (‰)				
Start	Stop	N	Min	Max	Mean	S.D.	N	Min	Max	Mean	S.D.	N	Min	Max	Mean	S.D.	N	Min	Max	Mean	S.D.
1/1/88 (0000)	1/31/88 (2330)	1488	-23.	11.	-6.7	7.3	1488	-18.	17.	-2.4	5.8	1488	17.1	20.0	18.3	0.7	1488	36.1	36.4	36.2	<0.0
2/1/88 (0000)	2/29/88 (2330)	1392	-21.	14.	-2.1	6.7	1392	-13.	11.	-0.8	5.0	1392	15.0	17.6	16.7	0.5	1392	35.5	36.3	36.1	<0.0
3/1/88 (0000)	3/31/88 (2330)	1488	-16.	15.	-2.3	6.0	1488	-15.	9	-0.7	3.3	1488	15.0	18.8	17.0	0.6	1488	35.6	36.5	36.1	<0.0
4/1/88 (0000)	4/30/88 (2330)	1440	-20.	19.	-2.5	6.2	1440	-25.	30.	-0.9	4.8	1440	15.7	19.0	17.5	0.8	1440	35.6	36.5	36.3	<0.0
5/1/88 (0000)	5/31/88 (2330)	1488	-14.	18.	-1.8	4.6	1488	-12.	13.	-0.9	3.5	1488	17.3	19.9	18.5	0.7	1488	36.1	36.6	36.4	<0.0
6/1/88 (0000)	6/30/88 (2330)	1440	-10.	7.	-0.6	2.6	1440	-12.	7.	-0.6	2.7	1440	18.5	20.1	19.0	0.3	1440	35.6	36.5	36.4	<0.0
7/1/88 (0000)	7/31/88 (2330)	1488	-10.	17.	-0.7	3.8	1488	-23.	13.	-0.5	3.0	1488	18.4	22.5	19.6	0.9	1488	36.3	36.9	36.5	<0.0
8/1/88 (0000)	8/31/88 (2330)	1488	-11.	6	-2.0	3.2	1488	-11.	7.	-0.6	2.7	1488	18.6	22.6	19.7	0.8	1488	36.2	36.7	36.4	<0.0
9/1/88 (0000)	9/30/88 (2330)	1440	-33.	16.	-4.1	7.1	1440	-21.	18.	0.4	5.1	1440	19.3	24.1	20.9	1.1	1440	36.0	36.6	36.4	<0.0
10/1/88 (0000)	10/31/88 (2330)	1488	-15.	12.	-3.6	4.4	1488	-14.	11.	0.0	3.3	1488	18.6	21.3	20.2	0.8	1488	35.6	36.5	36.4	<0.0
11/1/88 (0000)	11/30/88 (2330)	1440	-21.	13.	-3.1	6.7	1440	-16.	15.	-0.3	4.0	1440	20.2	23.4	21.6	1.1	1440	35.5	36.5	36.2	<0.0
12/1/88 (0000)	12/31/88 (2330)	1488	-20.	19.	-6.1	6.9	1488	-14.	10.	-0.4	4.4	1488	18.3	22.3	20.2	1.0	1488	35.5	36.3	36.0	<0.0
1/1/89 (0000)	1/13/89 (1930)	616	-16.	15.	-5.7	6.2	616	-17.	6	-2.5	4.5	616	19.4	20.6	19.8	0.3	616	35.8	36.3	36.1	0.3
2/16/89 (2100)	2/28/89 (2330)	582	-18.	20.	-0.4	9.1	582	-13.	5	-3.4	3.8	582	16.4	19.8	18.6	0.8	582	35.6	36.3	36.0	0.4
3/1/89 (0000)	3/31/89 (2330)	1488	-24.	12.	-5.3	6.9	1488	-27.	14.	-1.2	4.9	1488	16.9	18.6	18.0	0.5	1488	35.6	36.3	36.1	<0.0
4/1/89 (0000)	4/30/89 (2330)	1440	-12.	16.	-0.7	4.1	1440	-11.	11.	-0.1	3.1	1440	17.9	18.6	18.3	0.2	1440	35.7	36.2	36.0	0.2
5/1/89 (0000)	5/31/89 (2330)	1487	-15.	20.	-1.1	4.3	1488	-9.	8	-0.4	2.9	1488	18.4	19.9	18.8	0.4	1488	35.8	36.4	36.1	<0.0
6/1/89 (0000)	6/21/89 (1100)	983	-20.	7.	-2.4	4.2	982	-10.	13.	-1.1	3.2	983	19.4	22.0	20.8	0.8	983	36.0	36.5	36.3	<0.0

Site C Top (20 m/430 m)		Along Isobath (cm/s)					Cross Isobath (cm/s)					Temperature (°C)					Salinity (‰)				
Start	Stop	N	Min	Max	Mean	S.D.	N	Min	Max	Mean	S.D.	N	Min	Max	Mean	S.D.	N	Min	Max	Mean	S.D.
8/25/88 (0600)	8/31/88 (2330)	324	-11.	28.	11.7	8.7	324	-28.	25.	5.2	10.7	324	22.4	29.8	26.8	2.4	324	34.6	36.8	35.8	0.6
9/1/88 (0000)	9/30/88 (2330)	1440	-62.	26.	-16.2	15.5	1440	-41.	26.	-5.1	12.7	1440	19.9	28.8	26.7	1.5	1440	30.2	37.2	36.4	0.2
10/1/88 (0000)	10/31/88 (2330)	1488	-40.	39.	4.6	13.1	1488	-40.	29.	-12.0	12.5	1488	24.5	28.3	25.6	1.0	1488	22.8	36.9	36.3	0.7
11/1/88 (0000)	11/30/88 (2330)	1440	-15.	43.	17.2	11.3	1440	-47.	7.	-18.1	10.3	1440	22.8	25.8	24.3	0.7	1440	36.1	37.3	36.7	<0.0
12/1/88 (0000)	12/31/88 (2330)	1488	-14.	25.	-0.5	6.8	1488	-7.	20.	4.[illegible]	4.4	1488	20.8	23.9	22.2	0.9	1488	35.2	36.7	36.0	0.3
1/1/89 (0000)	1/13/89 (1500)	607	-17.	4	-3.4	4.1	607	-9.	9	0.7	2.6	607	21.1	22.0	21.7	0.3	607	34.8	35.7	35.5	0.3
2/16/89 (1600)	2/28/89 (2330)	592	-22.	63.	16.2	18.2	592	-38.	21.	1.5	8.0	592	19.9	23.0	21.6	0.7	592	35.7	36.3	36.1	0.3
3/1/89 (0000)	3/31/89 (2330)	1488	-52.	63.	13.1	20.4	1488	-40.	47.	1.3	11.8	1488	18.1	23.5	21.3	1.1	1488	34.0	36.4	35.4	0.5
4/1/89 (0000)	4/30/89 (2330)	1440	-23.	22.	2.2	7.2	1440	-19.	25.	4.2	6.8	1440	21.2	23.2	22.0	0.4	1440	34.5	35.9	35.5	<0.0
5/1/89 (0000)	5/31/89 (2330)	1488	-25.	46.	18.0	15.9	1488	-33.	16.	-8.4	9.1	1488	22.0	26.7	24.5	1.2	1488	32.1	35.9	35.1	0.5
6/1/89 (0000)	6/20/89 (1800)	949	-23.	42.	10.1	10.4	949	-31.	23.	-4.6	7.6	949	25.8	28.0	26.9	0.6	949	31.1	35.7	34.4	1.0

Site C Middle (150 m/430 m)		Along Isobath (cm/s)					Cross Isobath (cm/s)					Temperature (°C)					Salinity (‰)				
Start	Stop	N	Min	Max	Mean	S.D.	N	Min	Max	Mean	S.D.	N	Min	Max	Mean	S.D.	N	Min	Max	Mean	S.D.
1/1/88 (0000)	1/31/88 (2330)	1488	-49.	42.	5.5	21.3	1488	-35.	25.	-4.7	8.0	1488	13.3	18.2	16.1	1.0	1488	35.8	36.4	36.2	<0.0
2/1/88 (0000)	2/29/88 (2330)	1392	-21.	23.	3.0	8.3	1392	-15.	21.	2.0	5.8	1392	14.2	17.0	15.7	0.6	1392	35.9	36.3	36.1	<0.0
3/1/88 (0000)	3/31/88 (2330)	1488	-34.	33.	-6.5	14.3	1488	-16.	18.	2.3	5.3	1488	13.5	16.9	15.3	0.9	1488	35.7	36.2	36.0	<0.0
4/1/88 (0000)	4/30/88 (2330)	1440	-45.	17.	-12.6	10.8	1440	-19.	19.	2.1	5.6	1440	14.0	16.7	15.4	0.5	1440	35.8	36.2	36.0	<0.0
5/1/88 (0000)	5/29/88 (0400) 5/22/88 (1930)	1353	-19.	38.	9.0	11.9	1353	-20.	22.	1.5	9.3	1353	15.4	18.5	16.8	0.5	1048	36.0	36.4	36.2	0.1
8/25/88 (0600)	8/31/88 (2330)	324	-9.	18.	0.0	5.2	324	-11.	9.	2.1	3.1	324	14.2	15.2	14.6	0.2	324	35.8	36.0	35.9	0.3
9/1/88 (0000)	9/30/88 (2330)	1440	-53.	16.	-10.9	13.0	1440	-24.	16.	-1.6	6.5	1440	13.1	17.0	15.6	0.7	1440	35.6	36.3	36.0	<0.0
10/1/88 (0000)	10/31/88 (2330)	1488	-32.	25.	-11.5	8.8	1488	-27.	12.	-5.3	8.5	1488	15.0	17.5	16.1	0.6	1488	35.8	36.3	36.0	<0.0
11/1/88 (0000)	11/30/88 (2330)	1440	-17.	37.	3.8	10.4	1440	-25.	15.	-1.7	5.2	1440	15.2	17.4	16.6	0.4	1440	35.9	36.3	36.1	<0.0
12/1/88 (0000)	12/31/88 (2330)	1488	-22.	22.	1.3	8.9	1488	-9.	16.	2.9	3.2	1488	15.1	17.1	16.2	0.5	1488	35.9	36.3	36.1	<0.0
1/1/89 (0000)	1/13/89 (1500)	607	-21.	13.	-5.6	6.9	607	-12.	11.	1.2	4.0	607	16.1	17.4	16.7	0.2	607	36.0	36.3	36.1	0.3
2/16/89 (1600)	2/28/89 (2330)	592	-10.	49.	12.5	14.6	592	-10.	15.	3.1	4.5	592	14.8	17.7	16.4	1.0	592	35.9	36.4	36.2	0.3
3/1/89 (0000)	3/31/89 (2330)	1488	-36.	22.	-4.6	14.2	1488	-10.	19.	3.9	5.1	1488	13.8	17.0	15.4	0.7	1488	35.8	36.3	36.0	<0.0
4/1/89 (0000)	4/30/89 (2330)	1440	-21.	19.	2.3	6.3	1440	-14.	14.	1.3	4.3	1440	15.1	17.3	16.1	0.4	1440	36.0	36.4	36.1	<0.0
5/1/89 (0000)	5/31/89 (2330)	1488	-1.	37.	8.0	13.5	1488	-8.	6.	-0.3	1.5	1488	14.0	17.0	15.7	0.6	1488	35.8	36.3	36.1	<0.0
6/1/89 (0000)	6/20/89 (1800)	949	11.	50.	25.4	7.8	949	-23.	12.	-2.6	6.1	949	14.4	17.1	15.9	0.4	949	35.9	36.3	36.1	0.2

Site C Bottom (426 m/430 m)		Along Isobath (cm/s)					Cross Isobath (cm/s)					Temperature (°C)					Salinity (‰)				
Start	Stop	N	Min	Max	Mean	S.D.	N	Min	Max	Mean	S.D.	N	Min	Max	Mean	S.D.	N	Min	Max	Mean	S.D.
1/1/88 (0000)	1/31/88 (2330)	1488	-30.	18.	-6.1	9.6	1488	-13.	11.	-0.3	3.8	1488	6.8	10.6	8.5	0.6	1488	34.8	35.3	35.0	<0.0
2/1/88 (0000)	2/29/88 (2330)	1392	-22.	14.	-6.6	8.3	1392	-15.	9.	-0.9	4.2	1392	7.0	10.4	8.8	0.6	1392	34.7	35.3	35.0	<0.0
3/1/88 (0000)	3/31/88 (2330)	1488	-28.	13.	-7.9	7.8	1488	-20.	18.	0.0	4.5	1488	7.0	11.0	9.2	0.8	1488	34.8	35.4	35.1	<0.0
4/1/88 (0000)	4/30/88 (2330)	1440	-31.	3.	-7.5	6.8	1440	-18.	11.	0.0	3.5	1440	8.2	10.4	9.1	0.5	1440	34.9	35.3	35.0	<0.0
5/1/88 (0000)	5/18/88 (1600)	849	-18.	14.	-3.6	6.0	849	-15.	11.	-0.2	3.2	849	8.6	10.7	9.7	0.5	849	34.9	35.3	35.1	0.3
8/25/88 (0600)	8/31/88 (2330)	324	-18.	3.	-8.9	6.2	324	-3.	4.	0.2	1.2	324	8.5	9.4	9.0	0.2	324	34.7	35.0	34.9	0.2
9/1/88 (0000)	9/30/88 (2330)	1440	-30.	16.	-3.6	7.7	1440	-16.	11.	-0.9	4.5	1440	7.7	10.6	9.1	0.6	1440	34.7	35.2	34.9	<0.0
10/1/88 (0000)	10/31/88 (2330)	1488	-22.	10.	-5.5	6.0	1488	-12.	12.	-0.2	3.2	1488	8.4	10.5	9.4	0.4	1488	34.7	35.2	34.9	<0.0
11/1/88 (0000)	11/30/88 (2330)	1440	-33.	27.	-4.9	9.5	1440	-20.	19.	-0.7	4.5	1440	7.3	10.8	9.5	0.7	1440	34.7	35.2	35.0	<0.0
12/1/88 (0000)	12/31/88 (2330)	1488	-30.	17.	-4.5	9.1	1488	-24.	11.	-0.8	4.6	1488	7.7	10.2	9.2	0.6	1488	34.7	35.1	34.9	<0.0
1/1/89 (0000)	1/2/89 (0200)	53	-7.	1.	-2.2	2.7	53	-7.	9.	-0.6	3.8	53	9.5	9.8	9.7	0.1	53	34.9	35.1	35.0	0.1
2/16/89 (1600)	2/28/89 (2330)	592	-34.	17.	-2.2	13.6	592	-16.	16.	0.0	7.5	592	6.9	9.9	8.7	0.7	592	34.8	35.3	35.1	0.3
3/1/89 (0000)	3/31/89 (2330)	1488	-29.	16.	-10.6	9.0	1488	-14.	25.	0.9	4.9	1488	7.9	10.4	9.1	0.6	1488	34.9	35.3	35.1	<0.0
4/1/89 (0000)	4/30/89 (2330)	1440	-44.	16.	-4.6	8.2	1440	-15.	14.	-0.5	5.6	1440	7.9	10.5	9.4	0.4	1440	34.5	35.3	35.1	<0.0
5/1/89 (0000)	5/31/89 (2330)	1488	-36.	16.	-8.9	7.7	1488	-14.	13.	1.1	3.9	1488	7.6	9.7	8.5	0.5	1488	34.9	35.2	35.0	<0.0
6/1/89 (0000)	6/20/89 (1800)	949	-15.	11.	-5.2	6.1	949	-10.	11.	0.6	3.4	949	7.7	9.5	8.8	0.5	949	34.8	35.2	35.0	0.2

Site D Top (10 m/60 m)		Along Isobath (cm/s)					Cross Isobath (cm/s)					Temperature (°C)					Salinity (‰)				
Start	Stop	N	Min	Max	Mean	S.D.	N	Min	Max	Mean	S.D.	N	Min	Max	Mean	S.D.	N	Min	Max	Mean	S.D.
2/12/89 (0500)	2/28/89 (2330)	806	-30.	39.	10.4	13.8	806	-53.	21.	-16.2	12.7	806	18.8	23.4	21.6	0.9	806	34.5	36.6	35.9	0.5
3/1/89 (0000)	3/31/89 (2330)	1488	-28.	39.	2.1	13.0	1488	-55.	26.	-6.0	13.1	1488	18.2	22.5	21.2	0.8	1488	32.6	36.7	35.5	0.6
4/1/89 (0000)	4/30/89 (2330)	1440	-37.	45.	5.0	10.3	1440	-32.	28.	-3.6	9.7	1440	20.4	24.4	22.0	0.9	1440	31.9	36.6	35.0	1.0
5/1/89 (0000)	5/31/89 (2330)	1488	-11.	26.	6.5	5.4	1488	-37.	21.	-6.1	5.7	1488	21.3	26.6	24.7	0.9	1488	32.6	36.5	35.6	0.9
6/1/89 (0000)	6/22/89 (0100)	1011	-2.	20.	4.9	4.0	1011	-28.	5	-2.7	4.6	1011	23.7	28.4	26.5	1.0	1011	28.1	36.3	34.7	1.6

Site D Bottom (57 m/ 60 m)		Along Isobath (cm/s)					Cross Isobath (cm/s)					Temperature (°C)					Salinity (‰)				
Start	Stop	N	Min	Max	Mean	S.D.	N	Min	Max	Mean	S.D.	N	Min	Max	Mean	S.D.	N	Min	Max	Mean	S.D.
2/12/89 (0600)	2/28/89 (2330)	804	-18.	25.	2.4	7.9	804	-23.	16.	-5.8	6.9	804	17.6	21.0	19.6	0.8	804	35.6	36.7	36.2	0.4
3/1/89 (0000)	3/31/89 (2330)	1464	-15.	30.	1.0	7.0	1474	-35.	19.	-3.0	7.6	1488	17.8	21.3	19.7	0.9	1488	35.7	36.8	36.3	<0.0
4/1/89 (0000)	4/30/89 (2330)	1414	-20.	19.	0.1	5.7	1427	-23.	12.	-5.4	5.7	1440	18.5	20.9	19.9	0.5	1440	35.3	36.8	36.4	<0.0
5/1/89 (0000)	5/31/89 (2330)	1087	-17.	16.	0.3	5.3	1084	-24.	7.	-6.8	6.0	1488	18.8	21.8	20.6	0.7	1488	36.2	36.7	36.5	<0.0
6/1/89 (0000)	6/22/89 (1600)	817	-14.	9	-2.6	3.5	800	-21.	7.	-3.1	4.7	1041	19.4	21.2	20.2	0.5	1041	36.1	36.7	36.5	<0.0

Site E Top (20 m/430 m)		Along Isobath (cm/s)					Cross Isobath (cm/s)					Temperature (°C)					Salinity (‰)				
Start	Stop	N	Min	Max	Mean	S.D.	N	Min	Max	Mean	S.D.	N	Min	Max	Mean	S.D.	N	Min	Max	Mean	S.D.
2/15/89 (2000)	2/28/89 (2330)	632	-44.	41.	11.8	13.8	632	-53.	22.	-9.3	12.3	632	19.9	23.9	22.3	0.8	632	34.3	36.4	36.0	0.5
3/1/89 (0000)	3/31/89 (2330)	1488	-22.	57.	17.3	13.0	1488	-52.	19.	-9.4	13.1	1488	20.2	24.5	22.3	0.8	1488	34.0	36.5	35.9	0.4
4/1/89 (0000)	4/30/89 (2330)	1440	-38.	51.	19.4	14.0	1440	-45.	25.	-8.4	12.4	1440	21.2	24.9	23.1	1.0	1440	33.6	36.2	35.5	0.4
5/1/89 (0000)	5/31/89 (2330)	1488	-41.	52.	19.5	10.5	1488	-49.	12.	-9.8	10.4	1488	23.1	26.6	25.3	0.8	1488	33.3	35.9	35.5	<0.0
6/1/89 (0000)	6/21/89 (2200)	1005	-26.	54.	12.5	14.7	1005	-51.	41.	-1.8	13.1	1005	25.9	28.4	27.1	0.6	1005	33.0	36.1	34.9	0.7

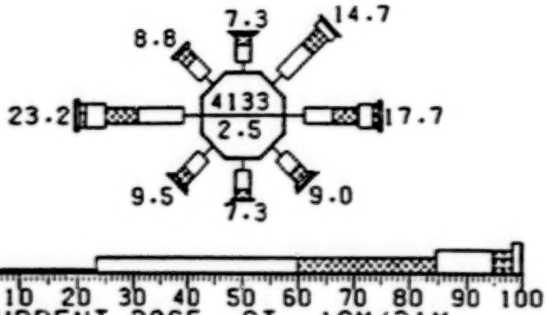
Site E Middle (150 m/430 m)		Along Isobath (cm/s)					Cross Isobath (cm/s)					Temperature (°C)					Salinity (‰)				
Start	Stop	N	Min	Max	Mean	S.D.	N	Min	Max	Mean	S.D.	N	Min	Max	Mean	S.D.	N	Min	Max	Mean	S.D.
2/15/89 (2000)	2/28/89 (2330)	632	-10.	41.	15.9	12.2	632	-18.	7.	-5.0	5.9	632	15.4	18.2	16.9	0.6	632	36.0	36.5	36.2	0.3
3/1/89 (0000)	3/31/89 (2330)	1488	-48.	43.	6.6	20.1	1488	-21.	17.	-1.7	6.9	1488	15.0	18.0	16.5	0.6	1488	35.9	36.4	36.2	<0.0
4/1/89 (0000)	4/30/89 (2330)	1440	-27.	46.	16.8	17.3	1440	-35.	15.	-7.8	9.0	1440	15.3	18.4	16.6	0.6	1440	36.0	36.5	36.2	<0.0
5/1/89 (0000)	5/31/89 (2330)	1488	-24.	38.	19.4	10.8	1488	-28.	8	-6.1	5.2	1488	15.6	18.0	16.6	0.6	1488	36.0	36.4	36.2	<0.0
6/1/89 (0000)	6/21/89 (2200)	837	7.	26.	16.8	3.2	837	-20.	2	-7.9	4.3	837	15.7	16.9	16.3	0.3	837	36.1	36.3	36.2	0.3

Site E Bottom (426 m/430 m)		Along Isobath (cm/s)					Cross Isobath (cm/s)					Temperature (°C)					Salinity (‰)				
Start	Stop	N	Min	Max	Mean	S.D.	N	Min	Max	Mean	S.D.	N	Min	Max	Mean	S.D.	N	Min	Max	Mean	S.D.
2/15/89 (2000)	2/28/89 (2330)	632	-28.	18.	-2.6	9.9	632	-12.	11.	0.7	4.2	632	7.5	10.2	8.8	0.7	428	35.0	35.3	35.2	0.3
3/1/89 (0000)	3/31/89 (2330)	1488	-29.	12.	-4.6	7.5	1488	-15.	16.	1.4	4.5	1488	8.0	11.2	9.5	0.6					
4/1/89 (0000)	4/30/89 (2330)	1440	-16.	14.	-0.4	6.0	1440	-14.	11.	-0.4	4.2	1440	8.5	11.2	9.4	0.5	892	34.5	35.4	35.1	0.3
5/1/89 (0000)	5/31/89 (2330)	1488	-15.	15.	-2.3	5.3	1488	-13.	15.	0.7	3.2	1488	8.0	10.7	8.8	0.5	1488	34.3	35.4	35.0	<0.0
6/1/89 (0000)	6/21/89 (2200)	1005	-20.	15.	-2.3	7.9	1005	-11.	10.	0.4	4.1	1005	8.3	10.0	9.2	0.4	1005	33.9	35.2	34.7	0.4

CURRENT ROSES

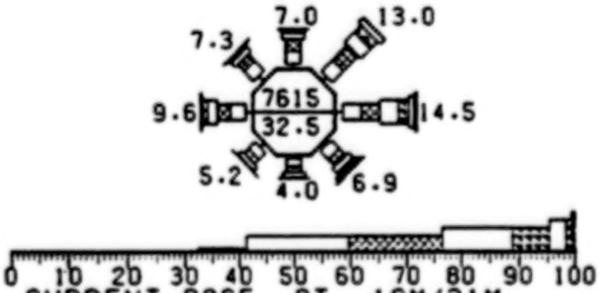
Current Roses (Joint Distribution of Speed and Direction)

A useful way to characterize the basic statistics of a velocity record is in a table of joint distribution of speed and direction and its graphical form, the current rose. This method is applied to the record for each deployment period at each instrument location (see the "CTD Graphs" section for locations). The percentages of joint occurrence are computed from the time-series of half-hourly values of U and V components. The speed ranges are selected so as to provide an optimum resolution in the lower ranges. Calm conditions are defined as speeds lower than typical instrument thresholds of about 1 cm/s. Each value in the joint frequency table represents the percentage of observations that fell in a given speed range and direction sector. The total for a given row gives the percentage of observations that fell in that direction sector regardless of speed (e.g., NE is from 22.5 degrees to 67.5 degrees). The scalar average speed (as opposed to vector average) for each direction sector is given on the far right side of each row. The total for a given column gives the percentage of observations that fell in a given speed range regardless of direction. For ease in visualizing the table, a rose diagram is plotted above it. Each rose petal corresponds to a direction sector in the table. Each segment of a petal corresponds to a speed range, and the length of each segment is proportional to the percentage expressed in the table. The total percentage in that direction is printed at the tip of each petal. A cumulative speed graph is plotted below each rose. It expresses the percentage of observations that fell in a given speed range regardless of direction, and it corresponds to the row of totals (second row from the bottom) in the table. The graph runs from 0 to 100 percent. The scale of the graph and the scale of the rose petals are the same. Thus, if all the petals of a rose are laid end-to-end, the length would equal the length of the graph, less the percentage of calms. The total number of observations on which the percentages are based is printed in the upper half of the center of the rose. The percentage of calms is printed in the lower half.



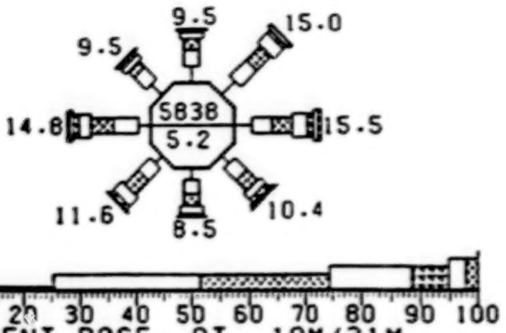
CURRENT ROSE. AT 10M/31M
87/12/21 (1900) - 88/03/16 (2100) (GMT)

DIR	RANGE (CM/S) E.G. 1< V ≤5										AVG SPEED
	1-5	5-10	10-15	15-20	20-25	25-30	30-40	40-50	50+	TOTAL	
N	1.9	3.0	1.7	0.5	0.2	0.1				7.3	8.6
NE	2.6	6.3	3.8	1.4	0.4	0.2				14.7	9.6
E	3.6	5.0	4.8	2.6	1.0	0.6	+			17.7	10.9
SE	2.5	3.4	2.1	0.6	0.4	+				9.0	8.9
S	2.1	3.3	1.6	0.3	+					7.3	7.7
SW	2.6	3.8	2.3	0.6	0.2	+				9.5	8.3
W	3.4	8.4	5.9	3.5	1.2	0.6	0.2			23.2	11.0
NW	2.2	3.5	2.5	0.6	+					8.8	8.3
TOTAL	20.8	36.7	24.7	0.0	3.5	1.6	0.2			97.5	9.4
CALM										2.5	



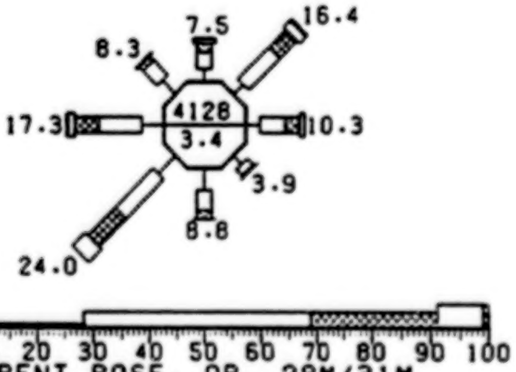
CURRENT ROSE. AT 10M/31M
88/03/16 (2200) - 88/08/22 (1300) (GMT)

DIR	RANGE (CM/S) E.G. 1< V ≤5										AVG SPEED
	1-5	5-10	10-15	15-20	20-25	25-30	30-40	40-50	50+	TOTAL	
N	0.9	2.2	2.1	1.1	0.6	0.1				7.0	11.7
NE	1.2	2.8	3.6	2.4	1.7	1.0	0.2			13.0	14.3
E	1.4	3.2	3.3	3.3	1.8	1.0	0.2	0.1	0.2	14.5	14.9
SE	0.7	2.0	1.6	1.1	0.5	0.4	0.3	0.1	0.1	6.9	14.6
S	0.6	1.3	1.0	0.8	0.2	+	+			4.0	10.7
SW	1.2	1.7	1.2	0.9	0.2	+	+	+		5.2	10.1
W	1.3	2.8	2.4	1.9	0.9	0.3	0.1	+		9.6	12.2
NW	1.4	2.4	1.7	1.0	0.5	0.2	+	+		7.3	10.9
TOTAL	8.7	18.4	16.8	12.4	6.5	3.1	1.0	0.3	0.3	67.5	8.8
CALM										32.5	



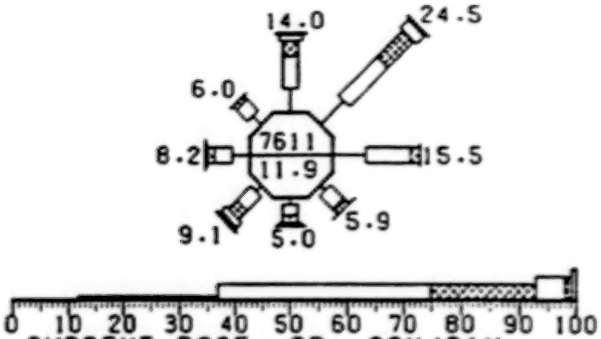
CURRENT ROSE. AT 10M/31M
89/02/18 (0430) - 89/06/19 (1900) (GMT)

DIR	RANGE (CM/S) E.G. 1< V ≤5										AVG SPEED
	1-5	5-10	10-15	15-20	20-25	25-30	30-40	40-50	50+	TOTAL	
N	2.9	2.8	2.1	1.0	0.3	0.2	0.2			9.5	9.4
NE	3.3	4.0	3.6	2.4	0.8	0.6	0.3			15.0	11.2
E	3.0	3.6	3.6	2.8	1.1	0.8	0.6			15.5	12.6
SE	1.9	2.9	2.6	1.3	0.9	0.5	0.3	+		10.4	12.2
S	2.0	2.4	2.1	1.3	0.5	+				8.5	10.1
SW	1.8	3.1	3.4	2.1	0.9	0.3	+			11.6	11.6
W	2.2	4.4	4.0	2.1	1.1	0.6	0.4			14.8	12.0
NW	2.8	3.0	1.5	1.0	0.7	0.1	0.3			9.5	9.9
TOTAL	20.1	26.2	22.9	14.0	6.3	3.1	2.1	+		94.8	10.7
CALM										5.2	



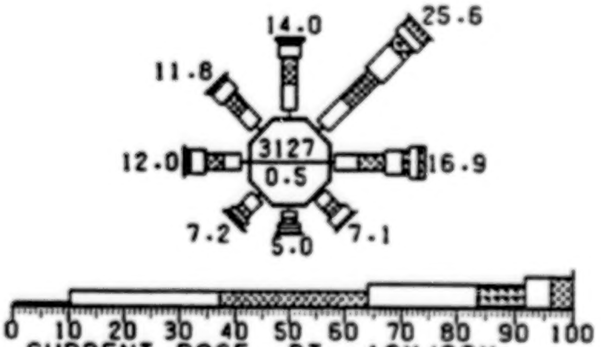
CURRENT ROSE. AB 28M/31M
87/12/21 (1330) - 88/03/16 (1300) (GMT)

DIR	RANGE (CM/S) E.G. 1< V ≤5										AVG SPEED
	1-5	5-10	10-15	15-20	20-25	25-30	30-40	40-50	50+	TOTAL	
N	2.3	2.8	1.6	0.7	0.2					7.5	8.4
NE	2.4	7.6	4.3	1.6	0.5					16.4	9.6
E	2.4	4.4	2.6	0.9	+					10.3	8.5
SE	2.1	1.5	0.3	+						3.9	5.6
S	3.8	3.4	1.5	+						8.8	6.4
SW	4.5	9.6	6.7	3.2						24.0	9.3
W	4.0	7.6	4.2	1.2	0.2					17.3	8.4
NW	3.4	3.6	1.0	0.2	+					8.3	6.4
TOTAL	24.9	40.5	22.3	7.8	1.0					96.6	8.1
CALM										3.4	



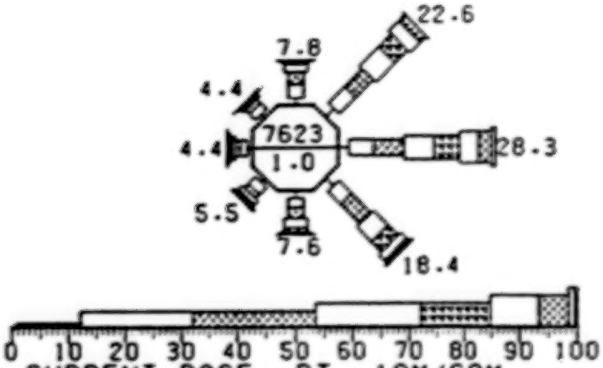
CURRENT ROSE. AB 28M/31M
88/03/16 (2230) - 88/08/22 (1130) (GMT)

DIR	RANGE (CM/S) E.G. 1< V ≤5										AVG SPEED
	1-5	5-10	10-15	15-20	20-25	25-30	30-40	40-50	50+	TOTAL	
N	4.2	5.6	2.8	1.0	0.2	0.2	•			14.0	8.3
NE	5.8	9.5	6.6	1.9	0.4	0.2	•			24.5	8.8
E	5.7	8.0	1.7	•						15.5	6.1
SE	1.2	3.4	1.2	•	•	•				5.9	7.6
S	1.2	1.9	1.2	0.5	0.1	•	•			5.0	9.2
SW	1.4	3.5	2.2	1.2	0.6	0.3				9.1	10.7
W	3.2	3.3	1.4	0.3	•	•				8.2	7.0
NW	2.3	2.8	0.9	•						6.0	6.6
TOTAL	24.9	38.1	17.9	5.0	1.3	0.8	0.1			88.1	7.1
CALM										11.9	



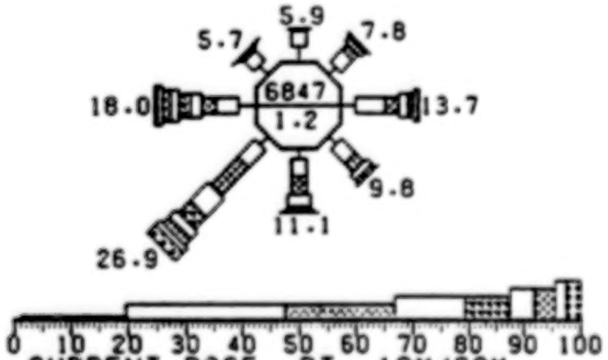
CURRENT ROSE. BT 10M/60M
87/12/30 (1800) - 88/03/04 (2100) (GMT)

DIR	RANGE (CM/S) E.G. 1< V ≤5										AVG SPEED
	1-5	5-10	10-15	15-20	20-25	25-30	30-40	40-50	50+	TOTAL	
N	1.6	4.5	4.5	2.1	0.7	0.4	0.3			14.0	11.8
NE	1.4	5.8	6.5	5.7	2.5	1.7	1.9	•		25.6	15.6
E	0.8	4.2	4.6	3.3	1.2	1.6	1.2			16.9	15.4
SE	0.6	2.1	2.0	1.9	0.4	•				7.1	12.2
S	1.0	1.2	1.0	0.7	1.1	•				5.0	12.3
SW	1.1	2.7	1.5	0.9	0.5	•	0.4			7.2	11.8
W	1.7	3.1	3.2	2.7	1.0	0.2	•			12.0	12.0
NW	1.5	3.3	3.5	2.4	0.7	0.3				11.8	11.7
TOTAL	9.8	26.9	26.9	19.6	8.1	4.4	3.8	•		99.5	13.4
CALM										0.5	



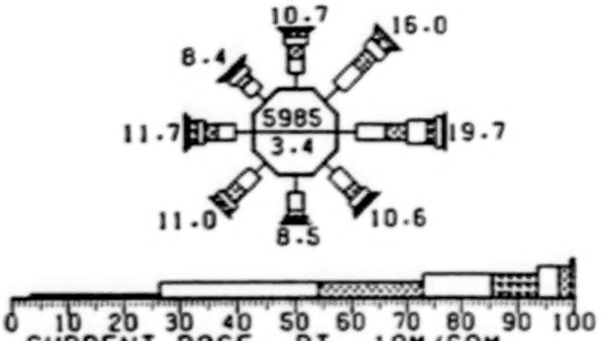
CURRENT ROSE. BT 10M/60M
88/03/17 (0200) - 88/08/22 (2100) (GMT)

DIR	RANGE (CM/S) E.G. 1< V ≤5										AVG SPEED
	1-5	5-10	10-15	15-20	20-25	25-30	30-40	40-50	50+	TOTAL	
N	1.2	2.4	2.2	1.3	0.4	0.2	0.1	+	+	7.8	11.7
NE	2.1	4.1	4.3	4.8	3.2	2.5	1.5	+		22.6	16.4
E	2.0	4.3	5.4	5.4	4.7	3.5	2.3	0.6	0.2	28.3	18.2
SE	2.0	3.1	4.8	3.6	2.5	1.4	0.6	0.2	0.2	18.4	15.6
S	1.3	1.6	1.9	1.6	0.8	0.2	0.2	+		7.6	12.6
SW	0.9	1.8	1.0	0.8	0.5	0.2	0.2			5.5	12.6
W	0.8	1.2	0.9	0.6	0.4	0.4	0.1	+		4.4	12.7
NW	0.9	1.5	0.9	0.5	0.3	+	0.1	0.1	+	4.4	11.7
TOTAL	11.1	19.9	21.5	18.5	12.8	8.4	5.2	1.1	0.4	99.0	15.3
CALM										1.0	



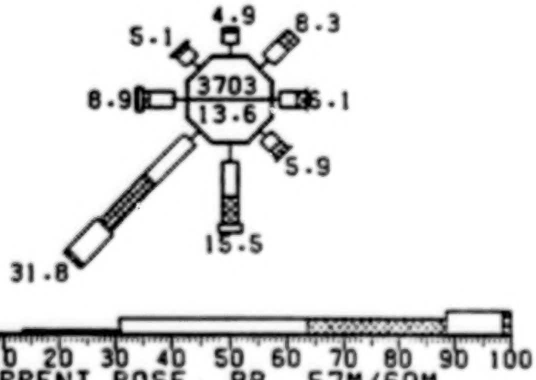
CURRENT ROSE. BT 10M/60M
88/08/24 (0600) - 89/01/13 (2100) (GMT)

DIR	RANGE (CM/S) E.G. 1< V ≤5										AVG SPEED
	1-5	5-10	10-15	15-20	20-25	25-30	30-40	40-50	50+	TOTAL	
N	2.7	2.6	0.4	0.1	+					5.9	5.9
NE	1.8	3.0	1.4	0.8	0.6	0.1				7.8	9.6
E	2.7	5.1	2.4	1.5	1.0	0.6	0.3			13.7	11.0
SE	1.9	3.5	2.1	1.2	0.8	0.1	+			9.8	10.4
S	1.8	3.0	3.1	2.1	0.6	0.3	0.2	+	+	11.1	12.0
SW	2.1	4.2	7.0	4.4	3.0	1.6	1.6	1.0	2.0	26.9	19.7
W	3.2	4.0	2.6	2.0	2.0	1.4	1.5	0.8	0.5	18.0	16.9
NW	2.2	2.4	0.4	0.2	0.2	0.1	+	+	+	5.7	7.7
TOTAL	18.4	27.8	19.4	12.4	8.4	4.3	3.7	1.9	2.5	98.8	13.7
CALM										1.2	



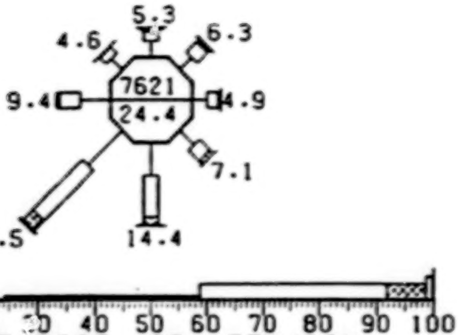
CURRENT ROSE. BT 10M/60M
89/02/16 (2000) - 89/06/21 (1200) (GMT)

DIR	RANGE (CM/S) E.G. 1< V ≤5										AVG SPEED
	1-5	5-10	10-15	15-20	20-25	25-30	30-40	40-50	50+	TOTAL	
N	2.8	2.5	2.4	1.4	1.0	0.5	0.1	+		10.7	11.4
NE	3.5	4.7	3.5	1.9	1.4	0.5	0.3	+		16.0	11.5
E	3.3	5.3	4.0	3.6	1.6	1.2	0.5	0.1		19.7	12.9
SE	2.4	3.6	1.8	1.4	0.5	0.5	0.4	+		10.6	11.0
S	3.0	3.1	1.0	0.4	0.7	0.3	+			8.5	9.0
SW	2.6	3.4	2.7	1.1	1.1	0.2	+			11.0	10.3
W	3.0	3.2	2.2	1.3	1.2	0.5	0.3	0.1		11.7	11.5
NW	2.3	2.1	1.4	1.3	0.6	0.2	0.3	0.2		8.4	11.8
TOTAL	22.9	27.8	18.8	12.4	8.1	3.8	2.1	0.6		96.6	11.0
CALM										3.4	



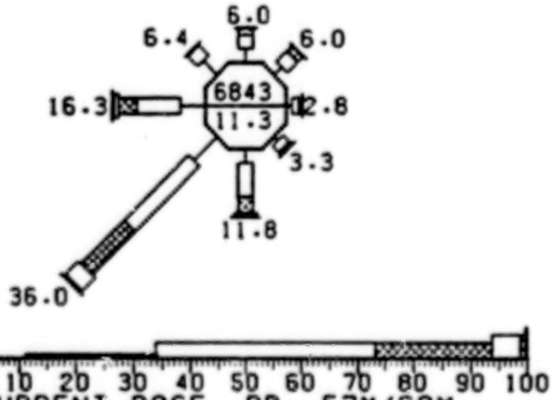
CURRENT ROSE. BB 57M/60M
87/12/30 (1900) - 88/03/16 (2200) (GMT)

DIR	RANGE (CM/S) E.G. 1< V ≤5										AVG SPEED
	1-5	5-10	10-15	15-20	20-25	25-30	30-40	40-50	50+	TOTAL	
N	2.2	2.0	0.8							4.9	6.0
NE	2.3	3.5	2.5							8.3	7.6
E	1.3	3.0	1.8	+						6.1	7.9
SE	1.6	2.3	1.8	+						5.9	7.5
S	3.3	5.9	4.8	1.3	0.1					15.5	8.9
SW	2.3	9.7	11.5	7.4	0.9					31.8	11.6
W	2.2	4.3	1.1	0.9	0.4					8.9	8.6
NW	1.9	2.1	0.7	0.3						5.1	6.9
TOTAL	17.3	32.8	25.0	10.0	1.4					86.4	8.0
CALM										13.6	



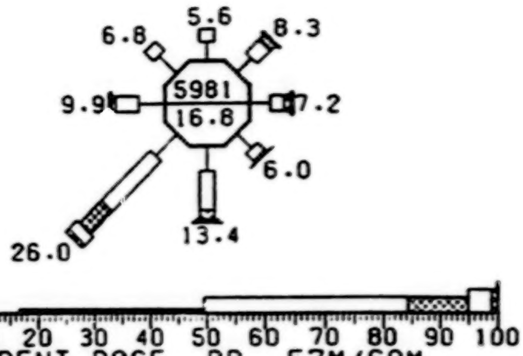
CURRENT ROSE. BB 57M/60M
88/03/17 (0330) - 88/08/22 (2130) (GMT)

DIR	RANGE (CM/S) E.G. 1< V ≤5										AVG SPEED
	1-5	5-10	10-15	15-20	20-25	25-30	30-40	40-50	50+	TOTAL	
N	2.9	1.6	0.4	0.2	0.2	+				5.3	6.2
NE	3.0	2.5	0.6	0.3						6.3	6.0
E	2.6	2.0	0.4	+						4.9	5.3
SE	3.6	2.6	0.8	+	+					7.1	5.7
S	5.7	7.1	1.4	0.1	+	+	+			14.4	6.2
SW	8.6	12.1	2.5	0.4						23.5	6.3
W	5.3	3.6	0.5							9.4	5.1
NW	2.8	1.5	0.2	+		+				4.6	4.8
TOTAL	34.4	33.0	6.8	1.1	0.2	+	+			75.6	4.5
CALM										24.4	



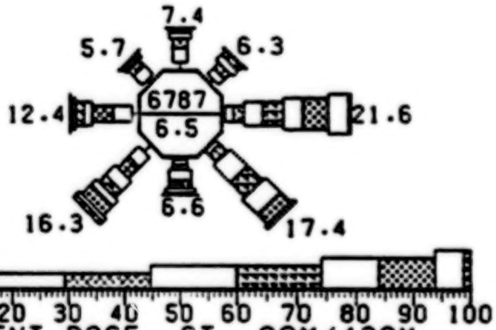
CURRENT ROSE. BB 57M/60M
88/08/24 (0630) - 89/01/13 (1930) (GMT)

DIR	RANGE (CM/S) E.G. 1< V ≤5										AVG SPEED
	1-5	5-10	10-15	15-20	20-25	25-30	30-40	40-50	50+	TOTAL	
N	2.4	2.3	1.2	0.2						6.0	6.8
NE	2.0	2.5	1.3	0.2						6.0	7.3
E	1.0	1.3	0.5	+						2.8	6.8
SE	1.0	1.6	0.6	+						3.3	7.3
S	2.4	5.8	2.8	0.6	0.2	+				11.8	8.6
SW	5.8	16.0	10.5	3.1	0.5	+	+			36.0	9.3
W	4.4	7.5	3.3	0.8	0.2	+	+			16.3	7.9
NW	3.6	2.4	0.4	+	+					6.4	5.1
TOTAL	22.6	39.3	20.5	5.1	0.9	0.2	0.1			88.7	7.3
CALM										11.3	



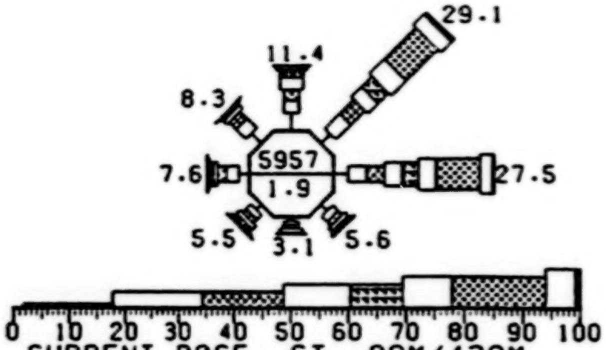
CURRENT ROSE, BB 57M/60M
89/02/16 (2100) - 89/06/21 (1100) (GMT)

DIR	RANGE (CM/S) E.G. 1< V ≤5										AVG SPEED
	1-5	5-10	10-15	15-20	20-25	25-30	30-40	40-50	50+	TOTAL	
N	3.3	2.2	0.1							5.6	4.6
NE	3.5	3.1	1.3	0.4						8.3	6.5
E	3.4	2.2	1.0	0.5	+					7.2	6.6
SE	3.6	1.8	0.4	+	+	+				6.0	5.3
S	4.3	6.8	1.5	0.5	0.2	0.1				13.4	7.2
SW	5.4	12.3	5.5	2.1	0.8					26.0	8.7
W	4.6	4.1	0.7	0.4	+					9.9	6.0
NW	4.4	2.3	0.1							6.8	4.4
TOTAL	32.6	34.8	10.6	3.9	1.1	0.1				83.2	5.8
CALM										16.8	



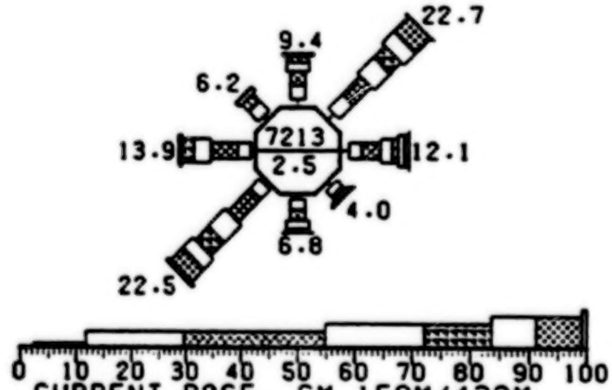
CURRENT ROSE, CT 20M/430M
88/08/25 (0600) - 89/01/13 (1500) (GMT)

DIR	RANGE (CM/S) E.G. 1< V ≤5										AVG SPEED
	1-5	5-10	10-15	15-20	20-25	25-30	30-40	40-50	50+	TOTAL	
N	1.4	2.5	1.6	1.0	0.7	0.1				7.4	10.6
NE	1.0	1.5	1.3	1.3	1.0	0.3	+			6.3	13.1
E	0.6	1.4	1.8	3.0	3.6	3.2	4.3	3.4	0.4	21.6	26.6
SE	0.4	0.8	2.0	4.1	3.6	3.5	2.4	0.6	+	17.4	22.5
S	0.6	0.8	0.9	1.8	1.4	0.7	0.4	+	+	6.6	17.6
SW	1.8	2.5	2.7	2.4	1.7	1.3	2.3	0.8	0.8	16.3	20.4
W	1.3	3.3	3.7	1.4	1.6	0.5	0.4	0.1		12.4	13.5
NW	0.9	2.2	1.3	0.4	0.6	0.2	+			5.7	11.1
TOTAL	7.9	15.0	15.3	15.3	14.1	9.8	9.9	5.0	1.3	93.5	18.0
CALM										6.5	



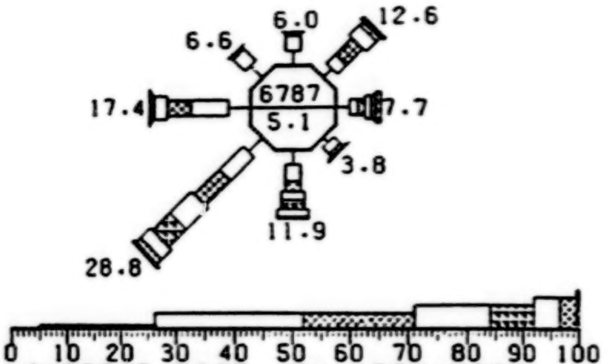
CURRENT ROSE. CT 20M/430M
89/02/16 (1600) - 89/06/20 (1800) (GMT)

DIR	RANGE (CM/S) E.G. 1< V ≤5										AVG
	1-5	5-10	10-15	15-20	20-25	25-30	30-40	40-50	50+	TOTAL	SPEED
N	3.1	2.1	1.9	2.1	1.3	0.6	0.2	+		11.4	12.2
NE	2.3	3.7	3.4	2.6	2.6	3.7	7.8	2.7	0.6	29.1	24.1
E	2.6	3.1	3.1	3.1	2.8	3.1	7.4	2.2	0.2	27.5	23.1
SE	1.6	1.3	1.0	0.8	0.5	0.3	0.1			5.6	11.5
S	0.8	0.6	0.6	0.7	0.2	0.1	+			3.1	11.6
SW	1.3	1.1	0.9	0.8	0.7	0.2	0.3	0.1	+	5.5	13.7
W	1.8	2.2	1.6	0.8	0.6	0.2	0.2	+	+	7.6	11.5
NW	2.5	2.4	1.7	0.8	0.5	0.3	+	+		8.3	9.9
TOTAL	15.9	16.6	14.3	11.7	9.0	8.5	16.1	5.1	0.9	98.1	18.2
CALM										1.9	



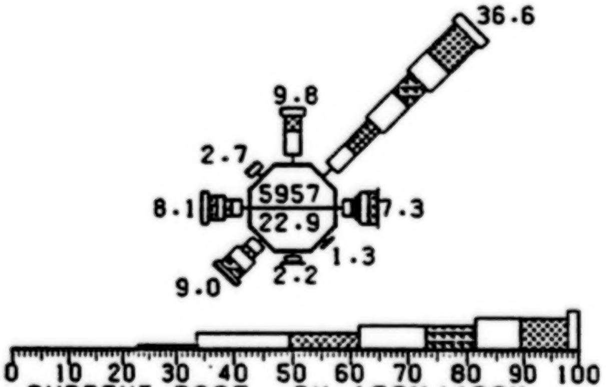
CURRENT ROSE. CM 150M/430M
87/12/30 (2200) - 88/05/29 (0400) (GMT)

DIR	RANGE (CM/S) E.G. 1< V ≤5										AVG
	1-5	5-10	10-15	15-20	20-25	25-30	30-40	40-50	50+	TOTAL	SPEED
N	1.5	2.3	2.5	1.5	1.2	0.5	+			9.4	12.6
NE	1.6	3.4	4.4	3.9	2.8	2.8	3.6	0.2		22.7	18.6
E	1.6	2.2	3.3	2.0	1.0	1.1	0.8	+		12.1	14.9
SE	1.1	1.3	0.9	0.4	0.1	0.1	0.2			4.0	10.6
S	0.9	1.8	1.9	1.3	0.7	0.2				6.8	12.3
SW	0.8	2.2	5.7	4.1	3.5	2.4	3.1	0.6		22.5	19.6
W	0.8	2.4	4.7	3.1	2.2	0.5	0.2			13.9	14.5
NW	1.0	2.3	1.9	0.8	0.1					6.2	0.0
TOTAL	9.3	18.0	25.2	17.2	11.6	7.6	8.0	0.8		97.5	15.5
CALM										2.5	



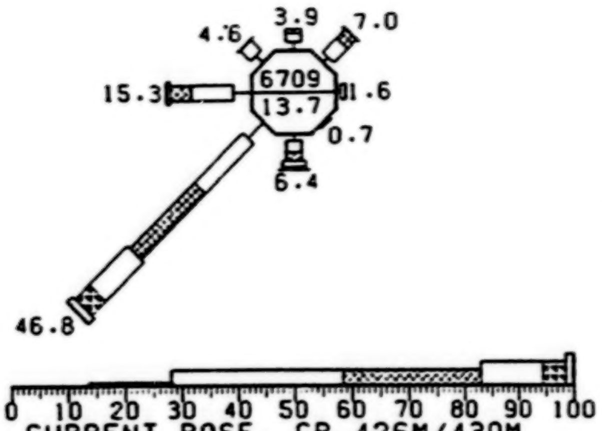
CURRENT ROSE. CM 150M/430M
88/08/25 (0600) - 89/01/13 (1500) (GMT)

DIR	RANGE (CM/S) E.G. 1< V ≤5										AVG
	1-5	5-10	10-15	15-20	20-25	25-30	30-40	40-50	50+	TOTAL	SPEED
N	2.6	2.7	0.7	+	+					6.0	5.9
NE	2.1	2.2	4.1	2.5	0.9	0.3	0.4			12.6	12.7
E	2.4	1.4	1.2	1.0	0.6	0.3	0.8			7.7	12.5
SE	1.2	1.6	0.6	0.3	+	+				3.8	7.8
S	2.5	2.9	1.8	1.5	1.6	1.3	0.3			11.9	13.4
SW	3.4	5.7	6.0	5.3	4.3	2.3	1.3	0.4	0.1	28.8	15.4
W	3.8	6.3	4.2	2.2	0.4	0.3	0.2	+		17.4	9.8
NW	3.0	2.9	0.6	+						6.6	5.6
TOTAL	21.1	25.6	19.2	12.9	8.0	4.6	2.9	0.4	0.1	94.9	11.3
CALM										5.1	



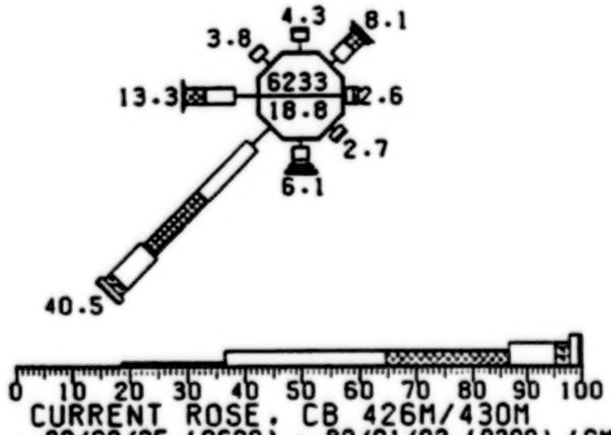
CURRENT ROSE. CM 150M/430M
89/02/16 (1600) - 89/06/20 (1800) (GMT)

DIR	RANGE (CM/S) E.G. 1< V ≤5										AVG
	1-5	5-10	10-15	15-20	20-25	25-30	30-40	40-50	50+	TOTAL	SPEED
N	1.7	4.0	2.6	1.3	+					9.8	9.3
NE	2.3	4.4	5.9	6.3	4.4	4.6	6.7	1.8	+	36.6	20.7
E	1.3	1.5	0.6	0.2	0.6	1.5	1.5	+		7.3	18.5
SE	0.8	0.5	+							1.3	4.2
S	0.9	0.8	0.3	0.1						2.2	6.8
SW	0.9	1.8	1.1	2.3	1.8	0.7	0.4			9.0	16.0
W	1.4	1.6	1.2	1.3	1.4	1.1	+			8.1	14.5
NW	1.3	1.2	0.3							2.7	5.4
TOTAL	10.7	15.8	12.1	11.6	8.3	8.0	8.7	1.9	+	77.1	12.8
CALM										22.9	



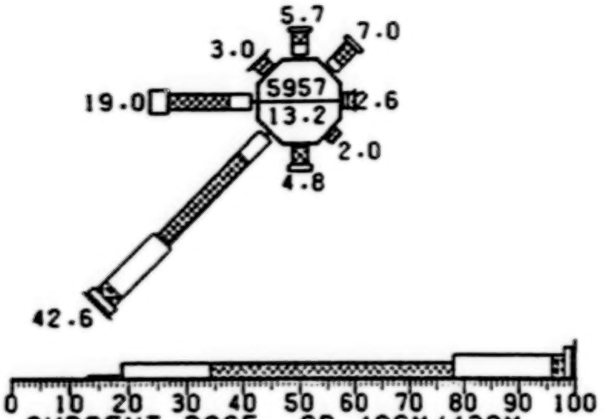
CURRENT ROSE. CB 426M/430M
87/12/30 (2200) - 88/05/18 (1600) (GMT)

DIR	RANGE (CM/S) E.G. 1< V ≤5										AVG SPEED
	1-5	5-10	10-15	15-20	20-25	25-30	30-40	40-50	50+	TOTAL	
N	1.6	1.5	0.8							3.9	6.3
NE	1.3	3.4	2.2	0.1						7.0	8.4
E	0.7	0.8	0.1							1.6	5.7
SE	0.5	0.2								0.7	3.2
S	1.2	2.1	1.5	1.0	0.5	•				6.4	11.0
SW	4.0	12.3	16.1	9.6	3.5	1.2	0.2			46.8	12.7
W	3.3	7.5	3.8	0.7	0.1					15.3	8.0
NW	1.9	2.6	0.1	•						4.6	5.3
TOTAL	14.4	30.3	24.5	11.4	4.1	1.3	0.2			86.3	9.0
CALM										13.7	



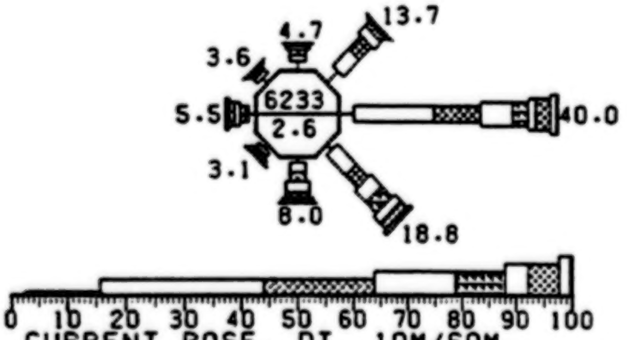
CURRENT ROSE. CB 426M/430M
88/08/25 (0600) - 89/01/02 (0200) (GMT)

DIR	RANGE (CM/S) E.G. 1< V ≤5										AVG SPEED
	1-5	5-10	10-15	15-20	20-25	25-30	30-40	40-50	50+	TOTAL	
N	2.1	1.6	0.5							4.3	5.4
NE	1.7	3.0	2.3	0.5	0.5	0.2				8.1	9.8
E	0.5	1.3	0.8							2.6	8.1
SE	1.0	1.3	0.4							2.7	6.1
S	1.4	2.1	0.9	0.5	0.4	0.5	0.2			6.1	11.2
SW	4.7	12.3	13.2	7.4	1.6	1.0	0.4			40.5	11.7
W	4.2	5.1	3.7	0.2	•	•				13.3	7.5
NW	2.0	1.6	0.2							3.8	4.9
TOTAL	17.6	28.3	22.0	8.6	2.6	1.6	0.5			81.2	8.0
CALM										18.8	



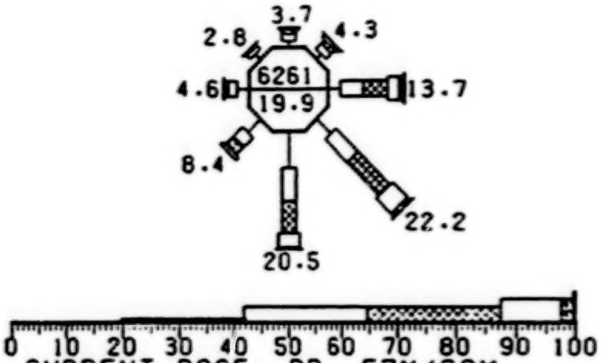
CURRENT ROSE. CB 426M/430M
89/02/16 (1600) - 89/06/20 (1800) (GMT)

DIR	RANGE (CM/S) E.G. 1< V ≤5										AVG
	1-5	5-10	10-15	15-20	20-25	25-30	30-40	40-50	50+	TOTAL	SPEED
N	0.8	2.0	2.2	0.7						5.7	10.0
NE	0.8	1.6	3.8	0.8						7.0	11.0
E	0.5	0.8	1.3	+						2.6	9.6
SE	0.4	0.5	1.2							2.0	9.5
S	0.2	0.4	3.1	1.1	+					4.8	13.0
SW	1.2	5.4	20.2	11.8	2.1	1.3	0.6	+		42.6	14.2
W	1.2	3.9	10.8	3.1	+					19.0	11.7
NW	0.6	0.8	1.2	0.3		+				3.0	9.5
TOTAL	5.6	15.3	43.9	17.8	2.2	1.4	0.6	+		86.8	11.0
CALM										13.2	



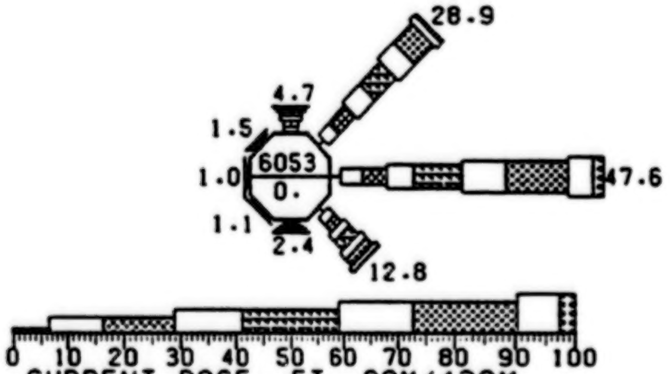
CURRENT ROSE. DT 10M/60M
89/02/12 (0500) - 89/06/22 (0100) (GMT)

DIR	RANGE (CM/S) E.G. 1< V ≤5										AVG
	1-5	5-10	10-15	15-20	20-25	25-30	30-40	40-50	50+	TOTAL	SPEED
N	1.7	1.0	1.0	0.6	0.4	+	+			4.7	9.6
NE	2.9	4.1	3.2	1.8	1.1	0.3	0.2	+		13.7	11.1
E	2.7	14.6	8.7	5.9	2.8	1.3	2.6	1.2	0.2	40.0	14.3
SE	1.3	4.9	3.1	2.9	2.7	1.6	1.6	0.6	0.1	18.8	17.2
S	0.9	1.6	1.6	1.8	1.0	0.5	0.4	0.1	+	8.0	15.2
SW	0.9	0.7	0.5	0.5	0.3	+	0.2			3.1	11.8
W	1.3	0.6	0.9	1.0	0.9	0.3	0.4			5.5	14.9
NW	1.3	0.8	0.8	0.4	0.2	+				3.6	9.0
TOTAL	13.0	28.3	20.0	14.9	9.2	4.1	5.5	1.9	0.4	97.4	13.7
CALM										2.6	



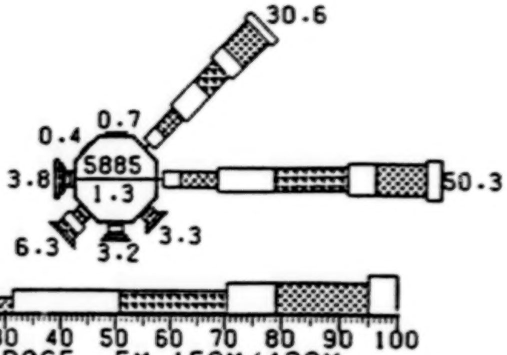
CURRENT ROSE. DB 57M/60M
89/02/12 (0600) - 89/06/22 (1600) (GMT)

DIR	RANGE (CM/S) E.G. 1< V ≤5										AVG
	1-5	5-10	10-15	15-20	20-25	25-30	30-40	40-50	50+	TOTAL	SPEED
N	1.1	1.3	0.8	0.4	+					3.7	6.3
NE	1.3	1.3	0.9	0.6	0.1	+				4.3	9.3
E	2.3	4.0	4.3	2.1	0.7	0.2	+			13.7	10.9
SE	3.8	5.7	8.0	3.6	0.8	+	+			22.2	10.8
S	6.4	5.7	5.6	2.3	0.4	+				20.5	8.8
SW	3.3	2.3	2.0	0.7	+					8.4	7.6
W	2.1	1.6	0.7	0.2	+					4.6	6.5
NW	1.4	0.9	0.4	0.1						2.8	6.0
TOTAL	21.8	22.9	22.9	10.0	2.1	0.3	+			80.1	7.5
CALM										19.9	



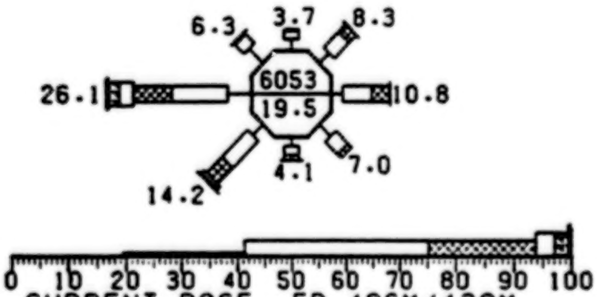
CURRENT ROSE. ET 20M/430M
89/02/15 (2000) - 89/06/21 (2200) (GMT)

DIR	RANGE (CM/S) E.G. 1< V ≤5										AVG
	1-5	5-10	10-15	15-20	20-25	25-30	30-40	40-50	50+	TOTAL	SPEED
N	0.4	0.8	1.1	0.8	0.7	0.4	0.4	0.2		4.7	18.2
NE	1.5	2.7	4.4	4.5	5.4	3.9	4.7	1.2	0.5	28.9	22.0
E	2.1	3.9	4.5	4.7	8.6	7.2	10.3	4.3	1.9	47.6	25.6
SE	1.4	1.7	1.8	1.5	2.2	1.5	1.6	0.9	0.2	12.8	20.7
S	0.4	0.3	0.3	0.2	0.2	0.3	0.4	0.2	+	2.4	21.2
SW	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1		1.1	21.1
W	0.3	0.1	0.1	0.1	0.2	+	+	+		1.0	14.2
NW	0.3	0.3	0.1	0.2	0.4	0.1	+			1.5	14.6
TOTAL	6.4	0.0	12.5	12.3	17.9	13.6	17.7	7.0	2.7	100.0	23.1
CALM											



CURRENT ROSE. EM 150M/430M
89/02/15 (2000) - 89/06/18 (1000) (GMT)

DIR	RANGE (CM/S) E.G. 1< V ≤5										AVG SPEED
	1-5	5-10	10-15	15-20	20-25	25-30	30-40	40-50	50+	TOTAL	
N	0.6	+	+	+	+					0.7	5.0
NE	1.2	2.9	4.7	6.1	5.1	2.9	6.3	1.5		30.6	21.8
E	1.2	3.1	7.0	10.1	12.5	4.9	8.7	2.7		50.3	22.7
SE	0.6	0.7	1.1	0.6	0.1	0.2	0.2			3.3	12.5
S	0.6	1.1	0.5	0.6	0.3	+				3.2	11.2
SW	0.4	0.8	1.3	1.8	1.4	0.6	0.1	+		6.3	16.9
W	0.2	0.7	0.9	0.3	0.2	+	0.6	0.7	+	3.8	22.4
NW	0.3	0.1	+							0.4	4.3
TOTAL	5.1	9.5	15.5	19.5	19.6	8.7	15.9	5.0	+	98.7	20.8
CALM										1.3	



CURRENT ROSE. EB 426M/430M
89/02/15 (2000) - 89/06/21 (2200) (GMT)

DIR	RANGE (CM/S) E.G. 1< V ≤5										AVG SPEED
	1-5	5-10	10-15	15-20	20-25	25-30	30-40	40-50	50+	TOTAL	
N	2.0	1.4	0.3							3.7	5.1
NE	2.5	3.8	1.9	0.1						8.3	7.1
E	2.1	5.4	3.3	+						10.8	8.0
SE	2.9	3.1	0.9							7.0	6.0
S	1.6	1.5	0.9	+						4.1	6.7
SW	2.7	6.6	3.9	0.6	0.3	0.1				14.2	8.9
W	4.3	9.9	7.0	2.4	2.0	0.4				26.1	10.4
NW	3.6	2.3	0.4	+						6.3	4.9
TOTAL	21.7	33.9	18.7	3.3	2.4	0.5				80.5	6.6
CALM										19.5	

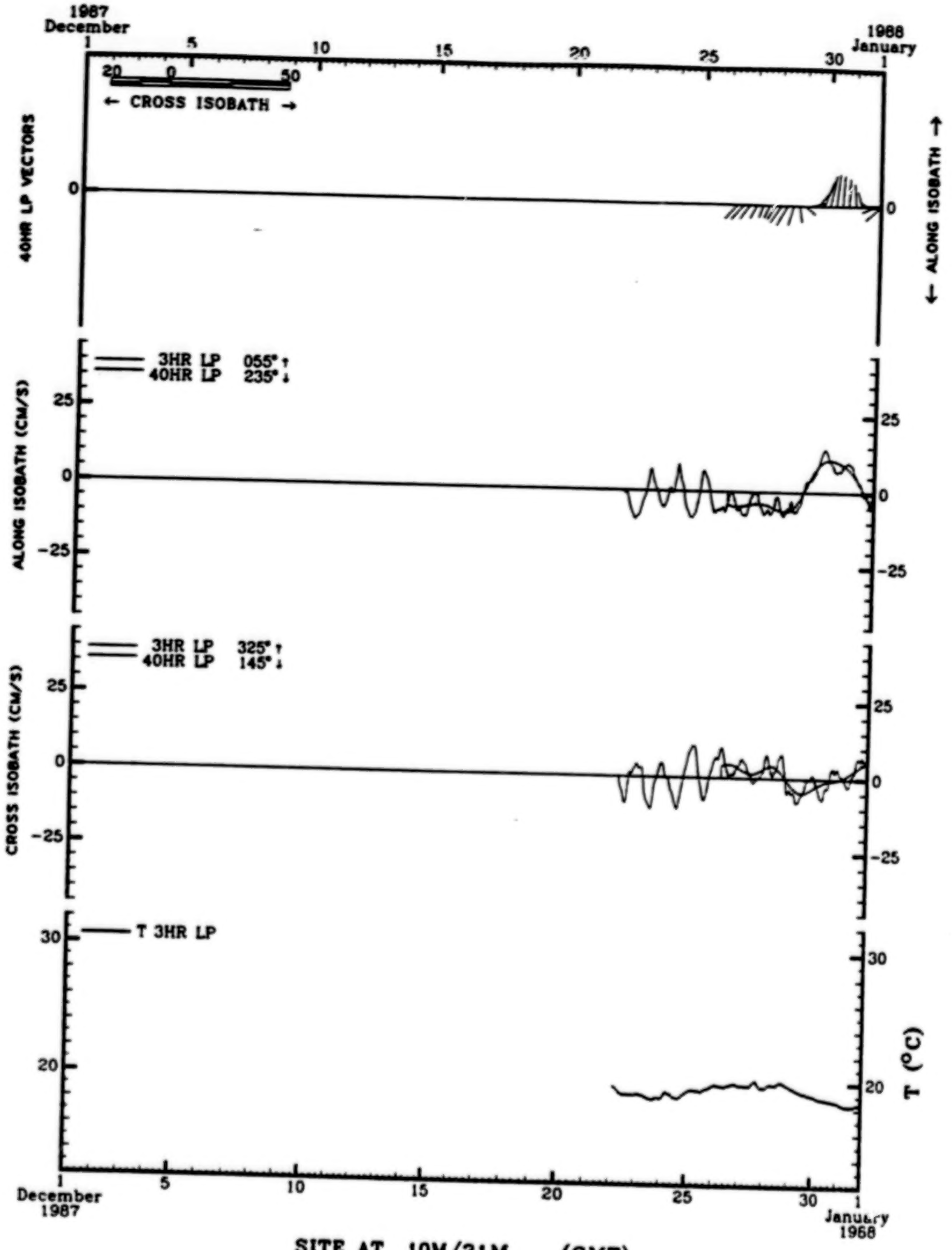
MONTHLY PLOTS

Monthly Plots of Current Velocity, Salinity, and Temperature Time Series

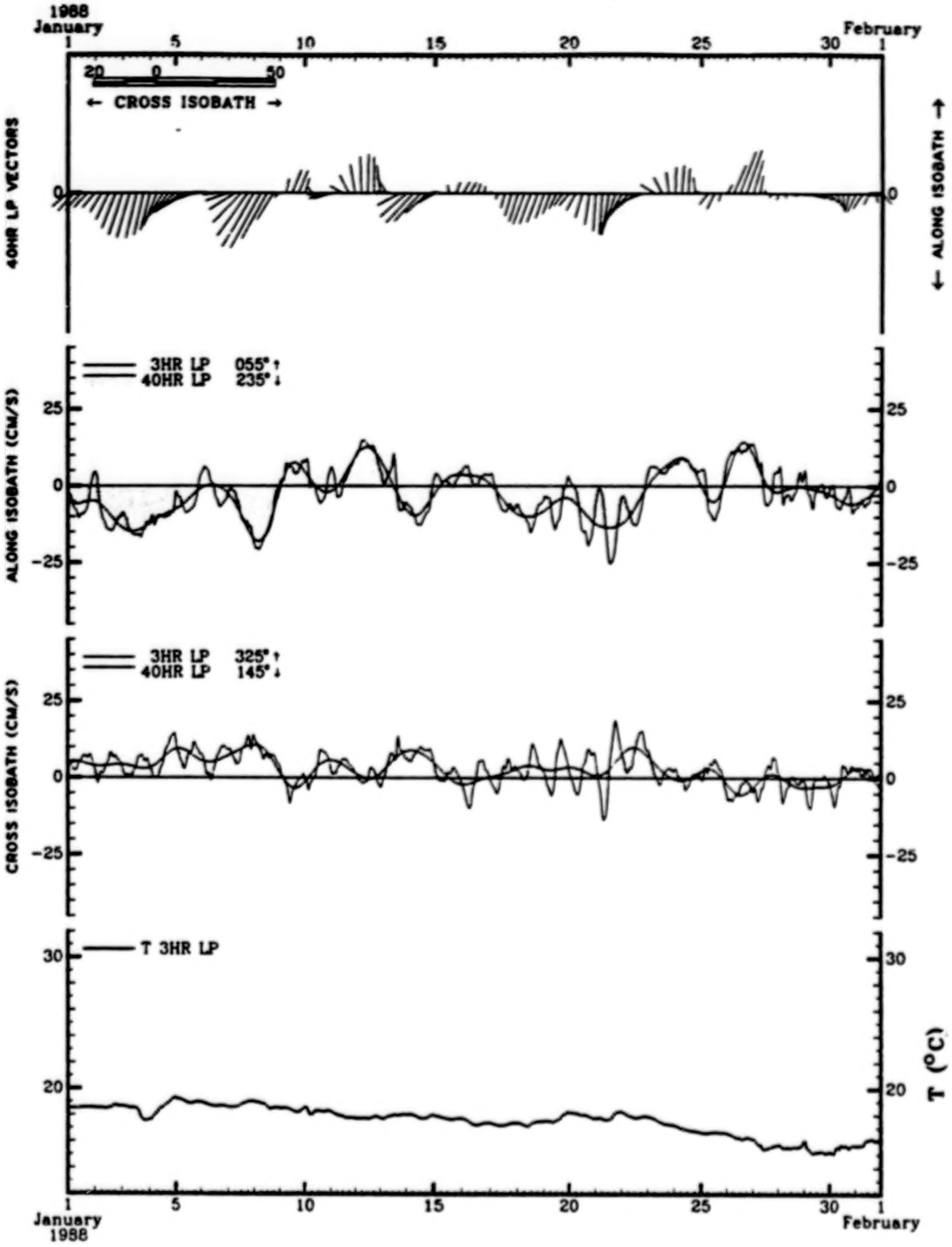
Monthly plots of the time series of current velocity, salinity, and water temperature are constructed for each instument location The location of each site can be found in the "CTD Graphs" section. The original time series were filtered with 3-hour and 40-hour low-pass filters. Stick vectors were reconstructed from the 40-hour low-pass filtered orthogonal components at 6-hour intervals (000, 0600, 1200, 1800 GMT). For each stick vector, the x-axis is oriented in the cross-isobath direction and the y-axis is oriented along the isobaths .

The orientation relative to true north of the y-axes in the alongshelf and cross-shelf component plots is shown in each frame, e.g. 055° - 235° (along isobath), 325° - 145° (cross isobath). Both the 3-hour low-pass filtered and the 40-hour low-pass filtered series are shown for each component.

The bottom frame shows the 3-hour low-pass filtered series for temperature and salinity.



SITE AT 10M/31M (GMT)



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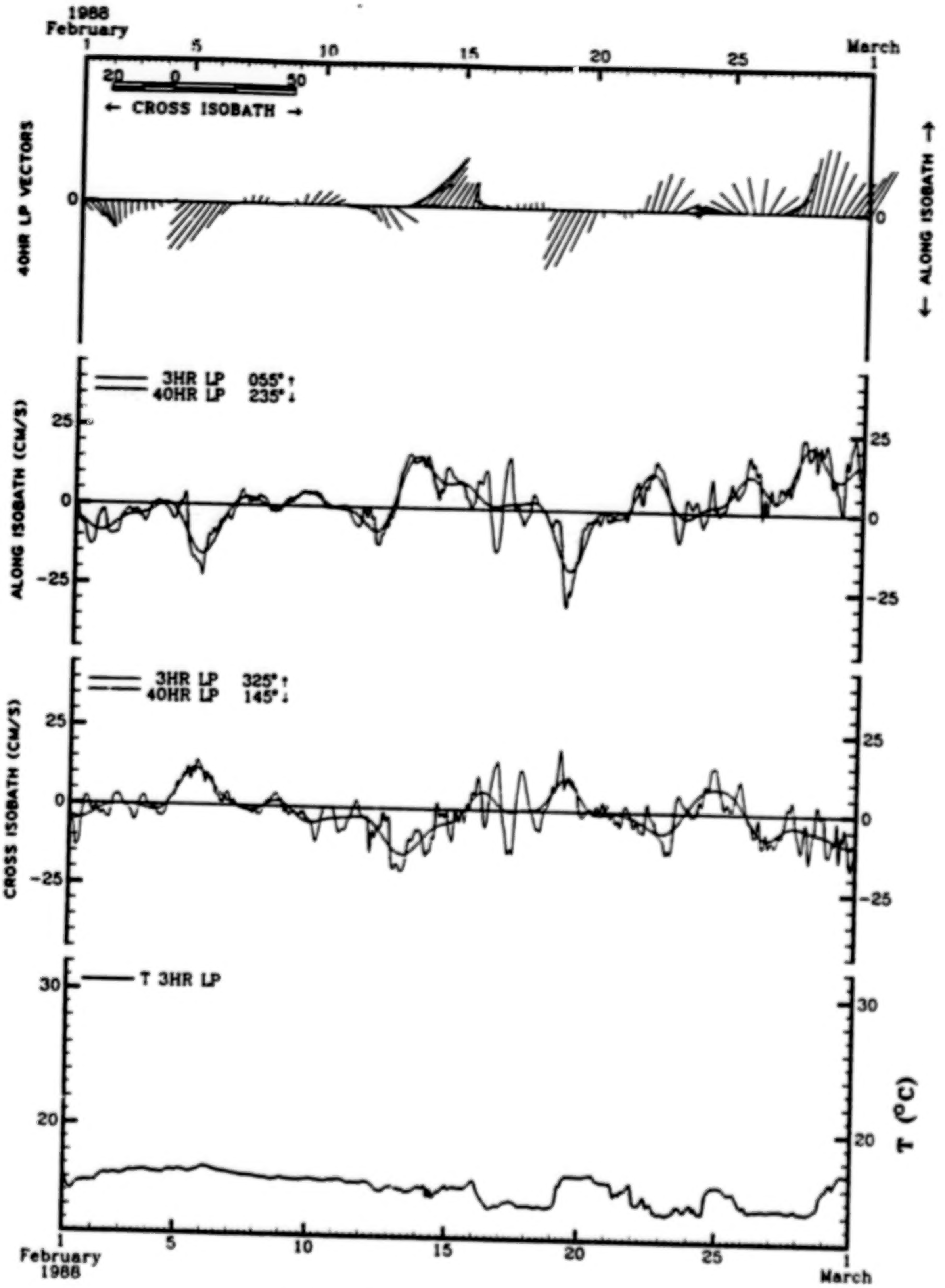

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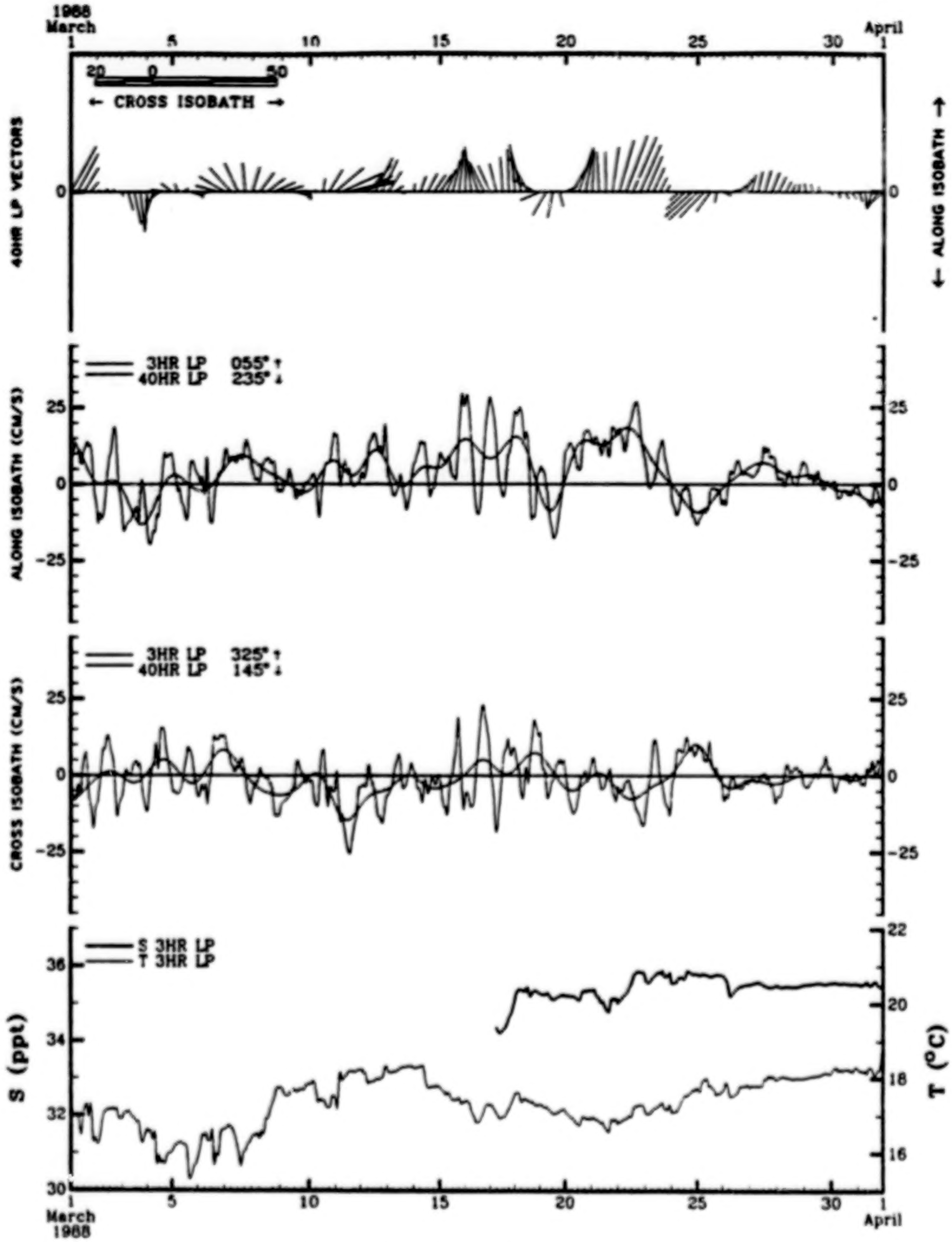

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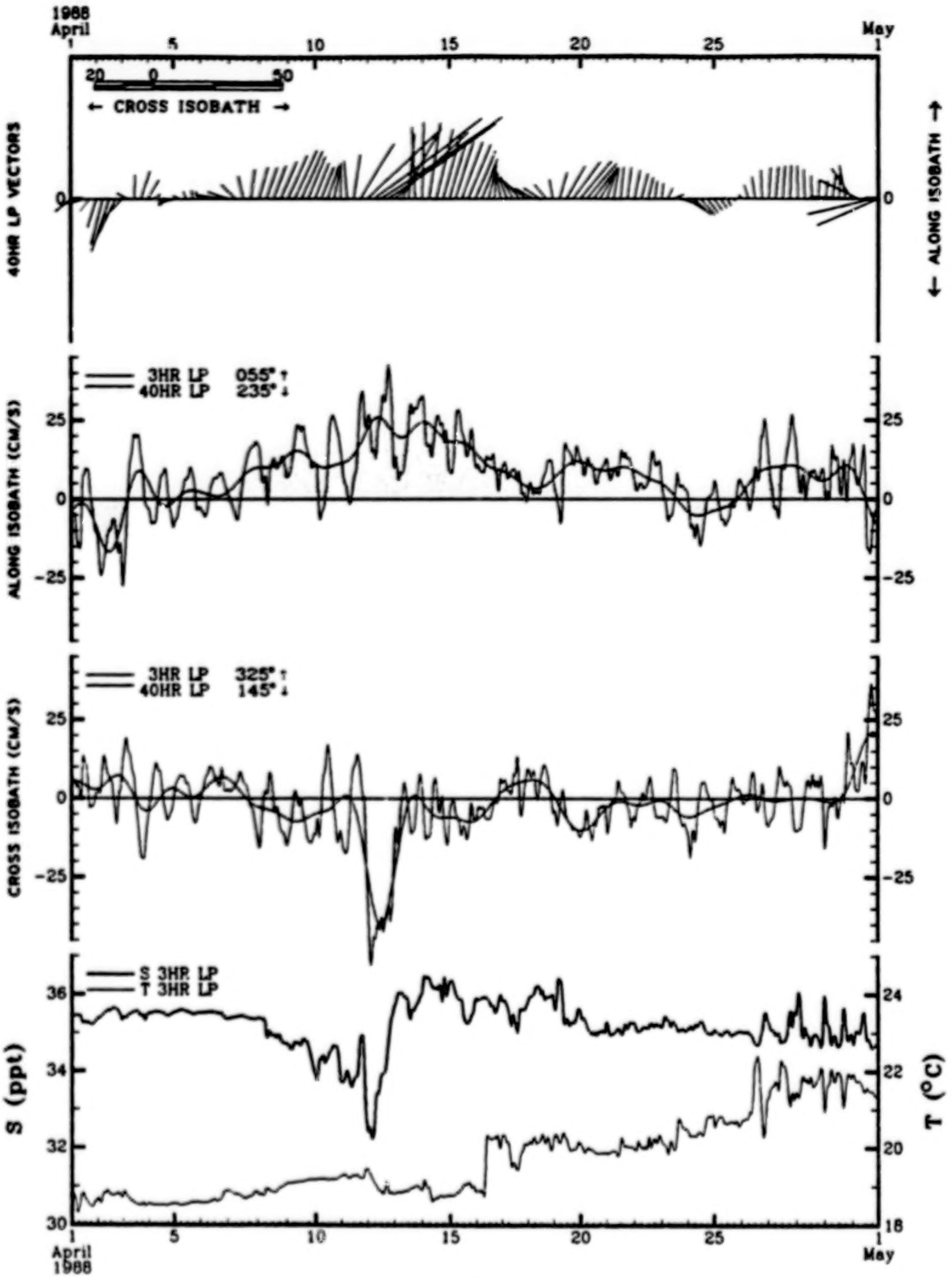

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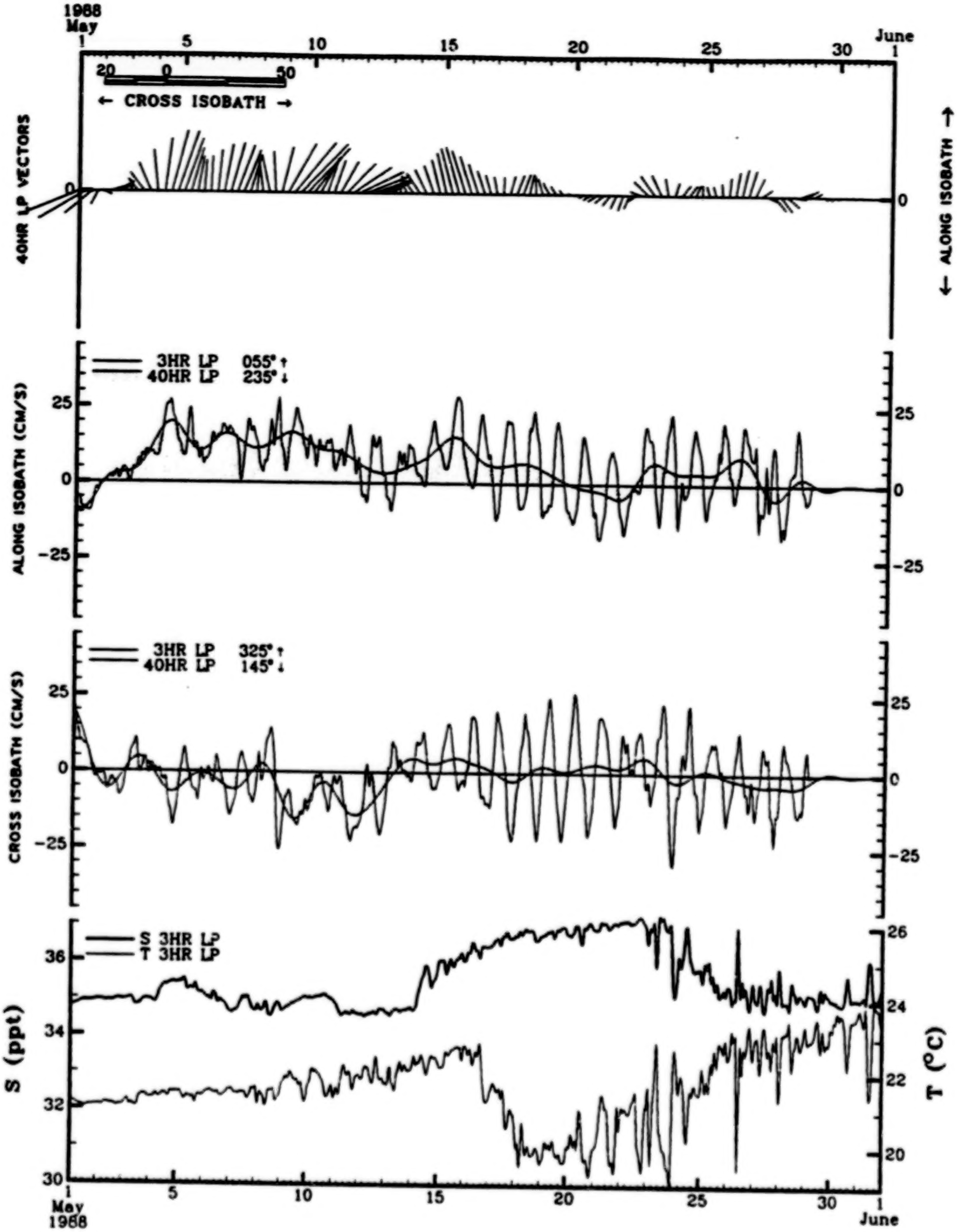

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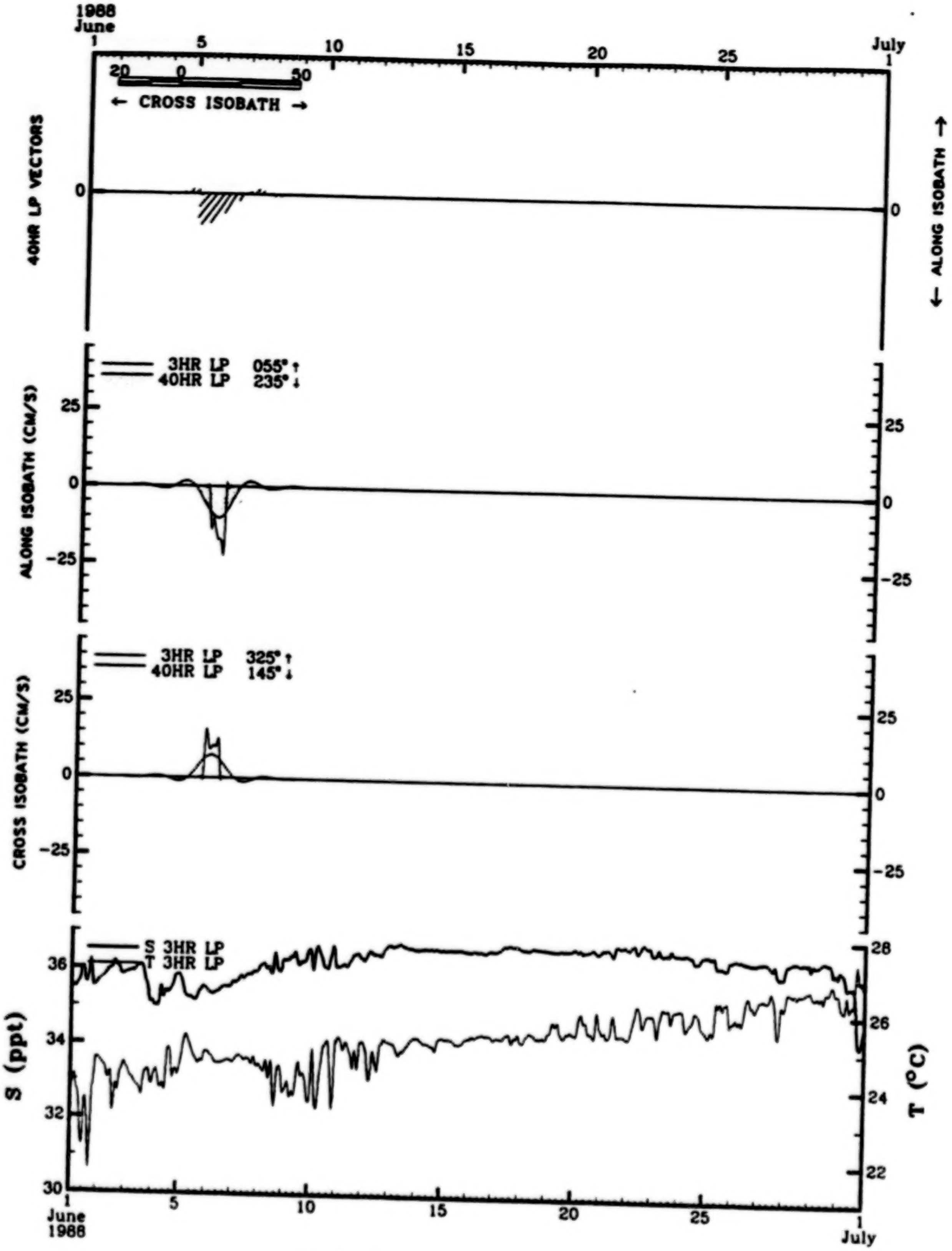
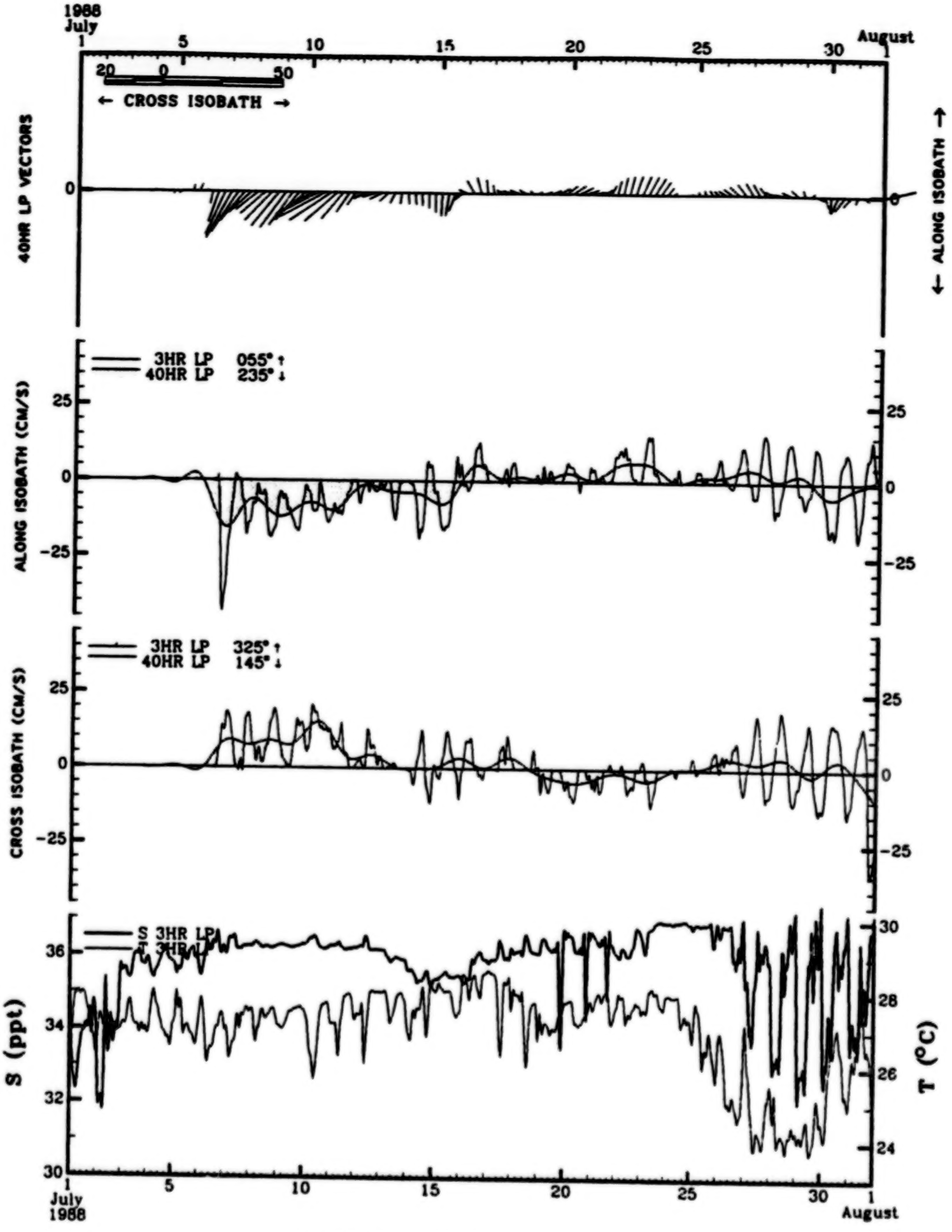


SITE AT 10M/31M (GMT)

278



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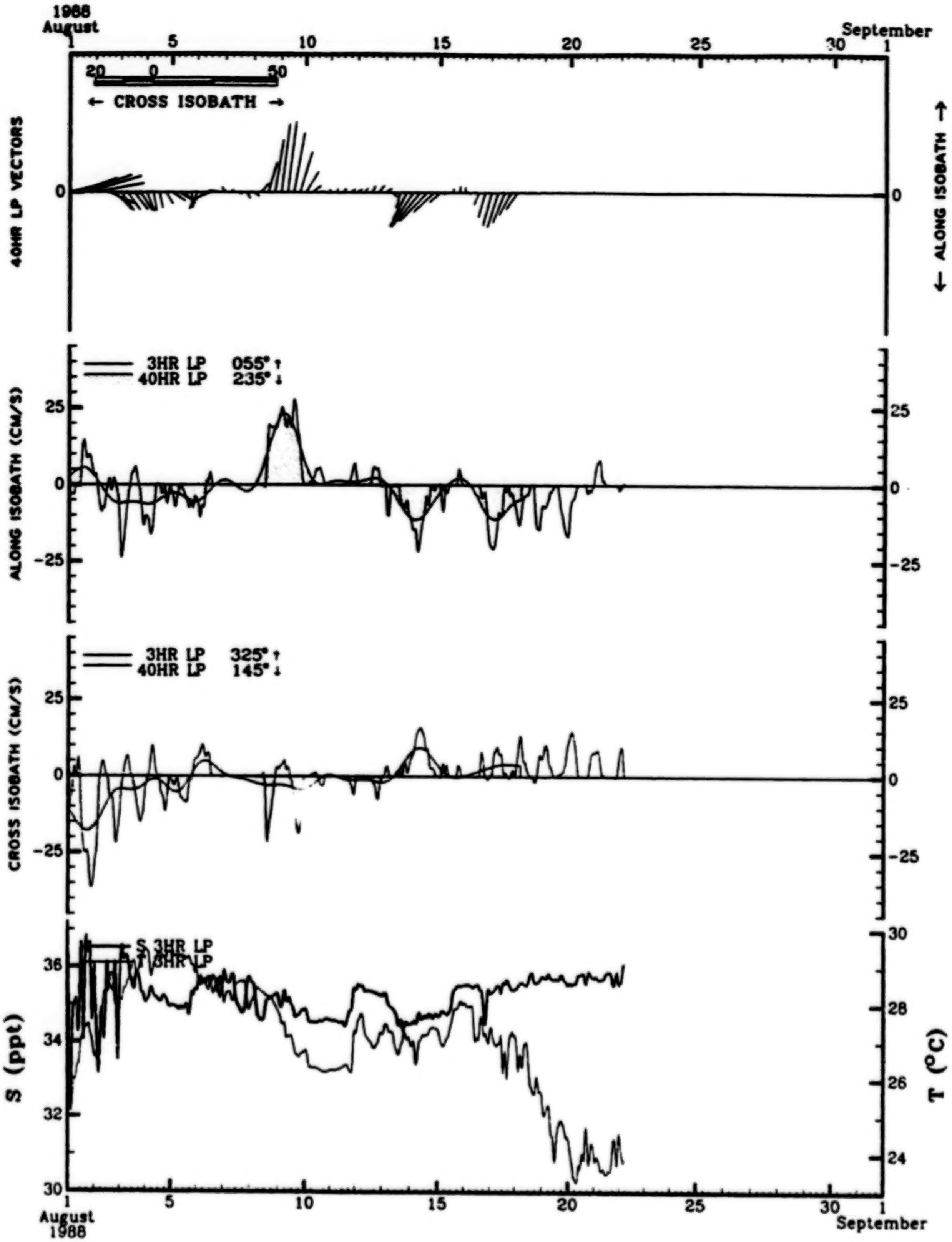

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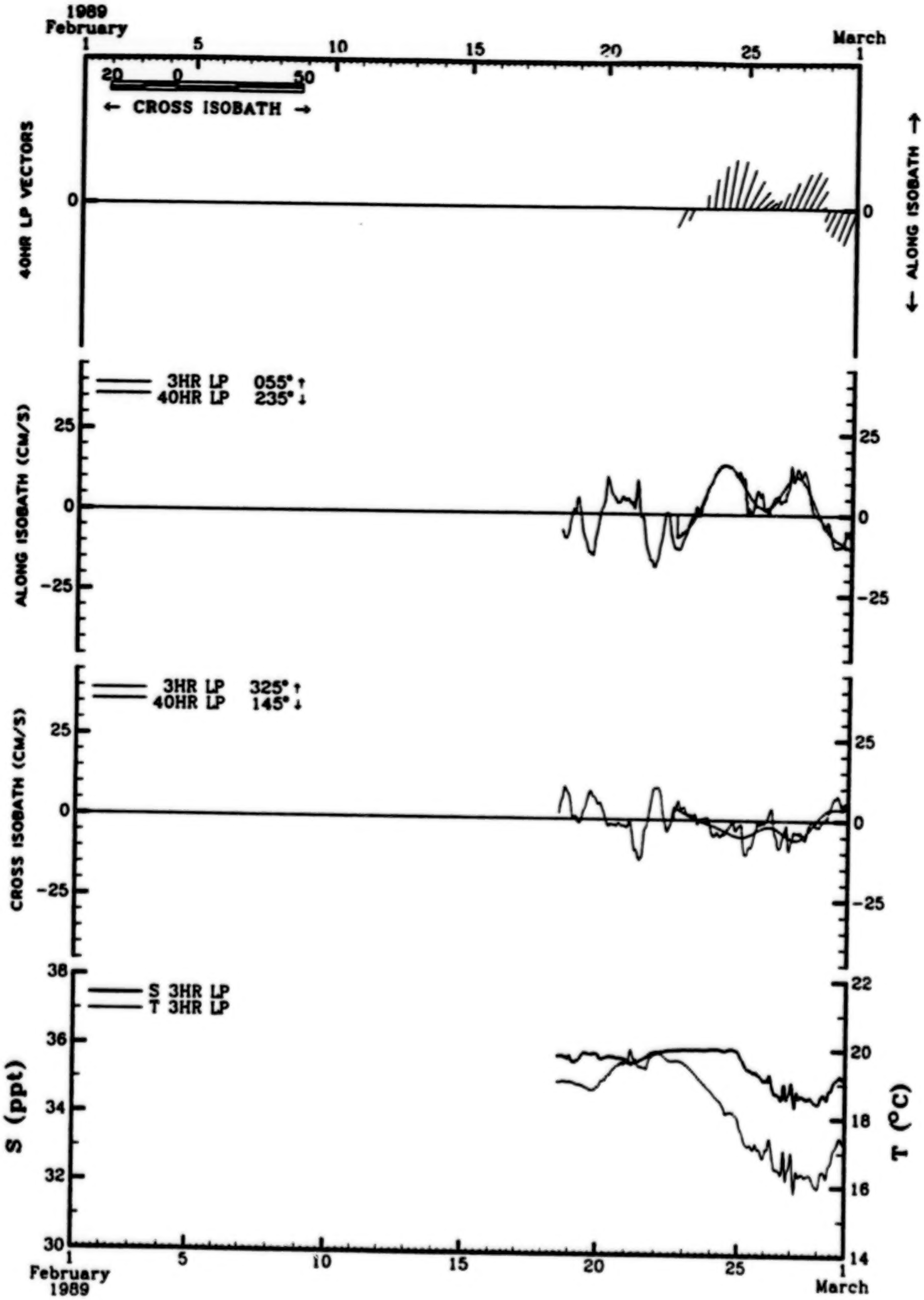

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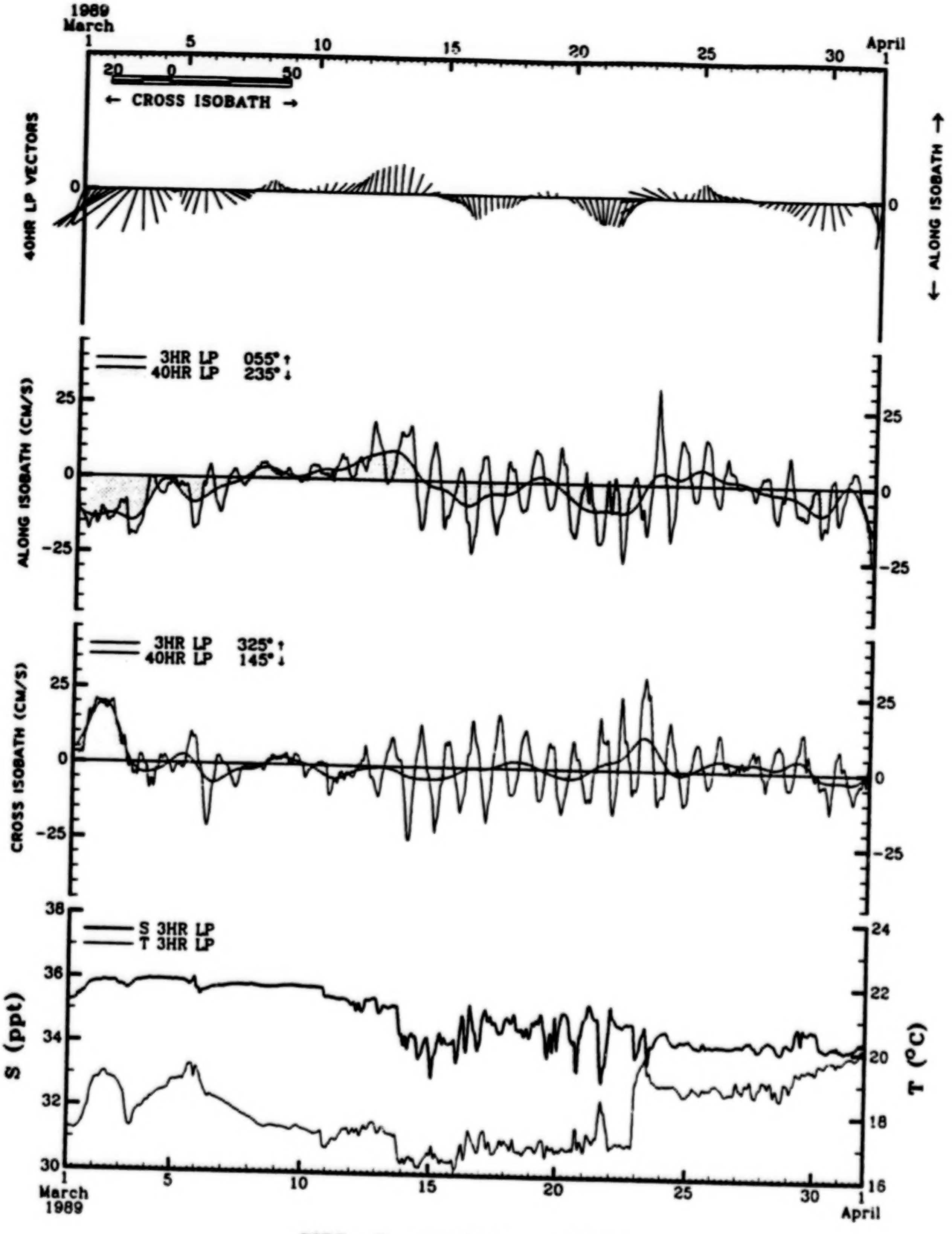

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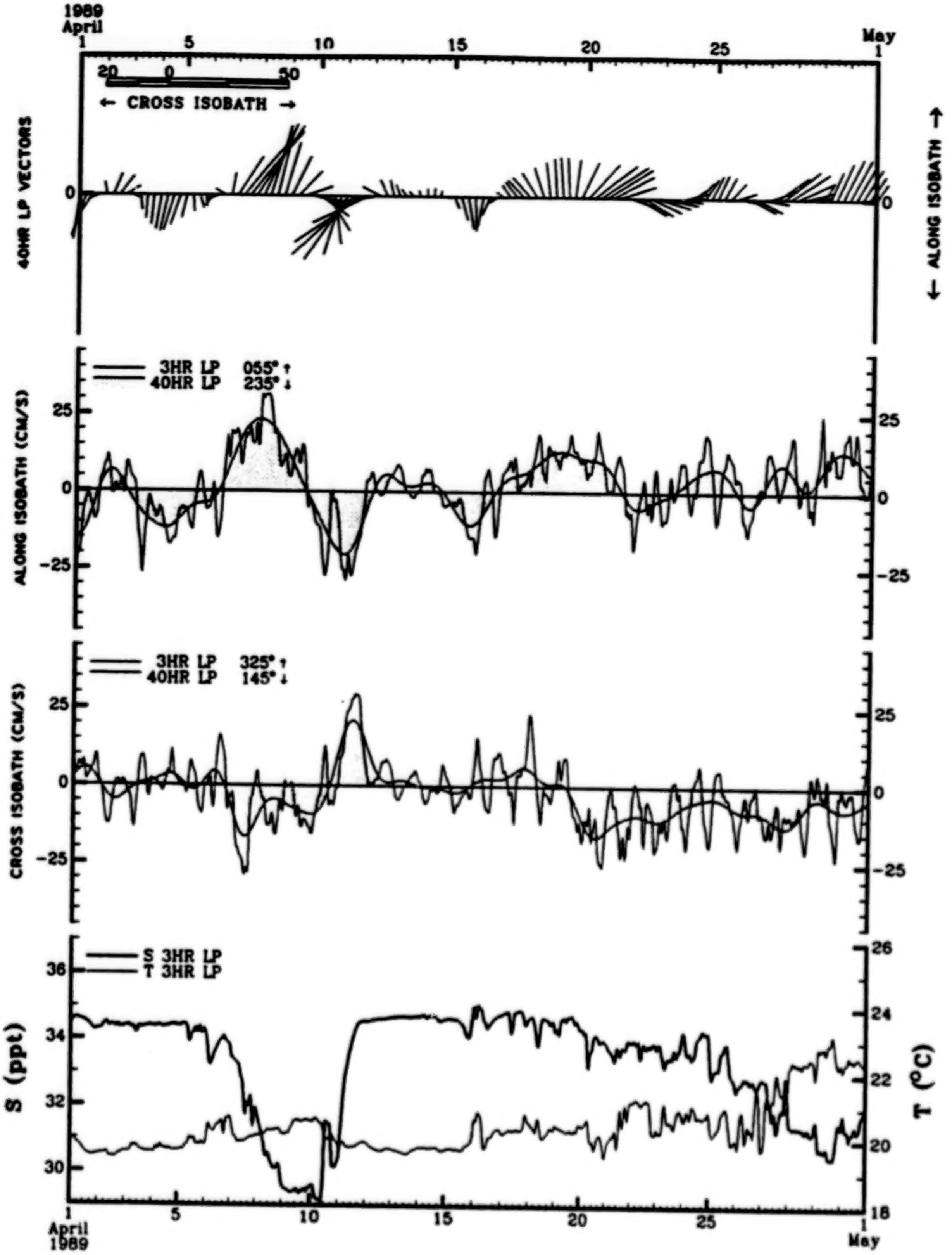

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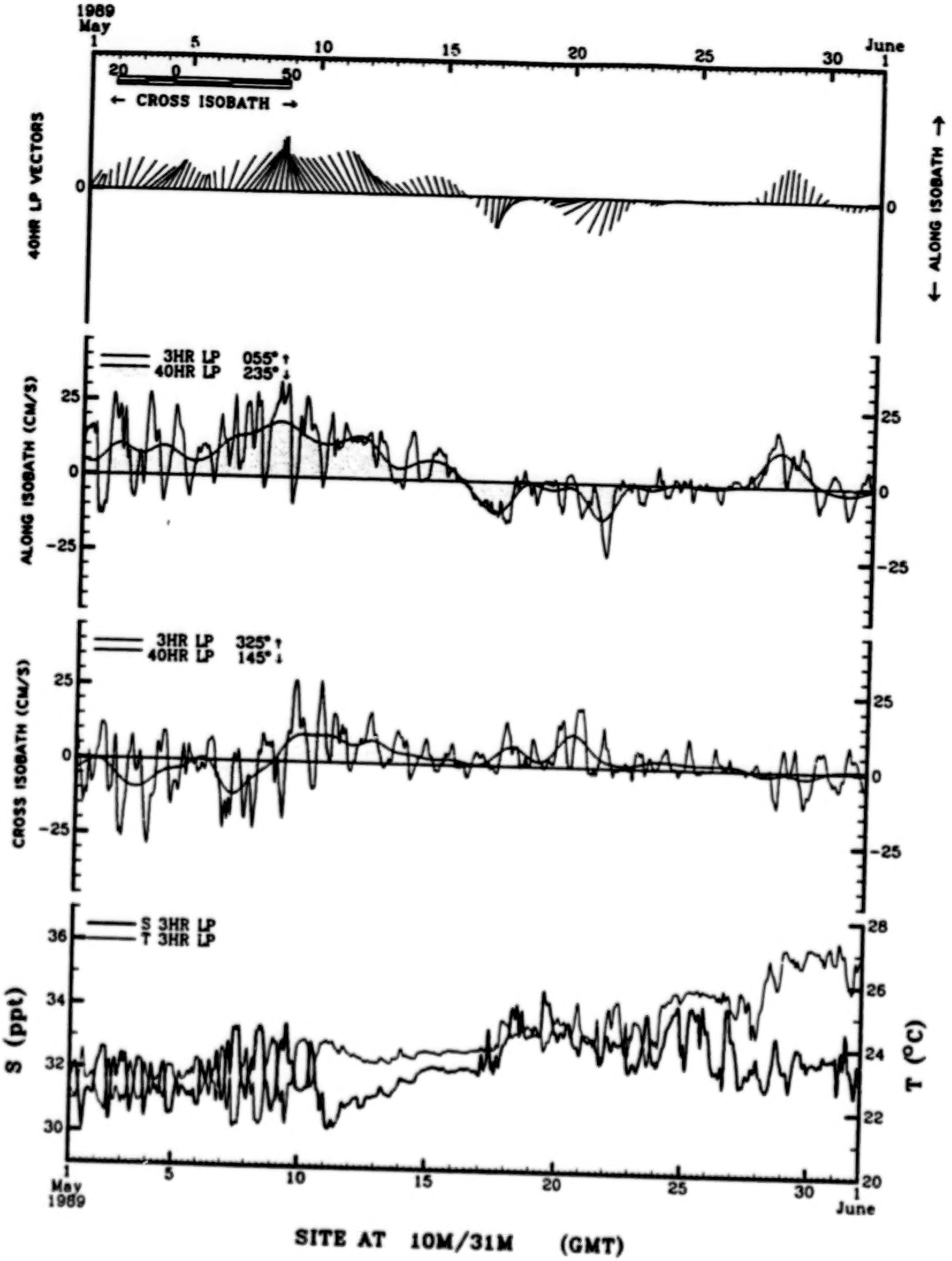
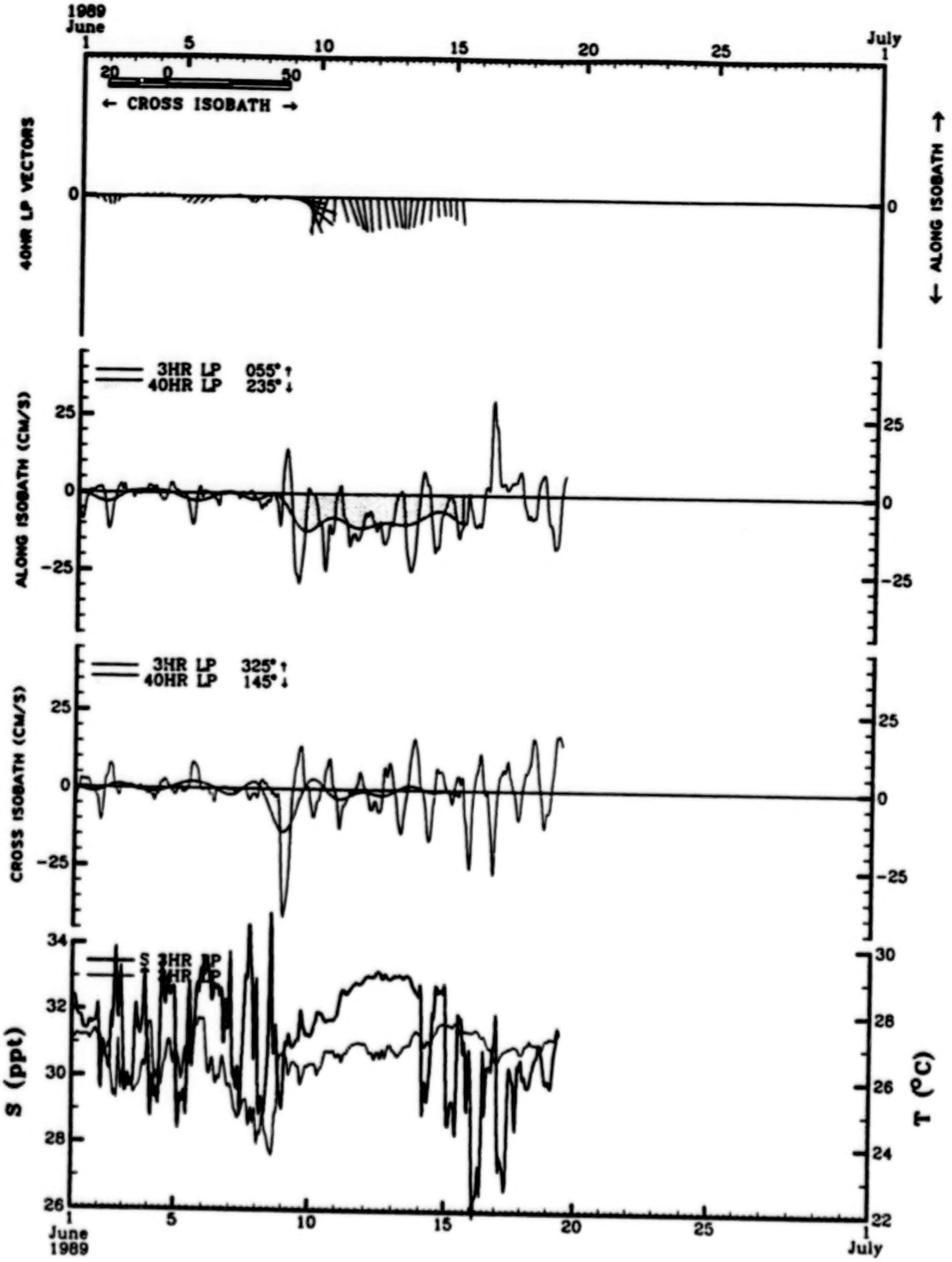

1989
May
1
5
10
15
20
25
30
June
1
20
0
50
← CROSS ISOBATH →
40HR LP VECTORS
0
← ALONG ISOBATH →
0
3HR LP 055° ↑
40HR LP 235° ↓
ALONG ISOBATH (CM/S)
25
0
-25
25
0
-25
3HR LP 325° ↑
40HR LP 145° ↓
CROSS ISOBATH (CM/S)
25
0
-25
25
0
-25
S 3HR LP
T 3HR LP
S (ppt)
36
34
32
30
T (°C)
28
26
24
22
20
1
May
1989
5
10
15
20
25
30
1
June
SITE AT 10M/31M (GMT)



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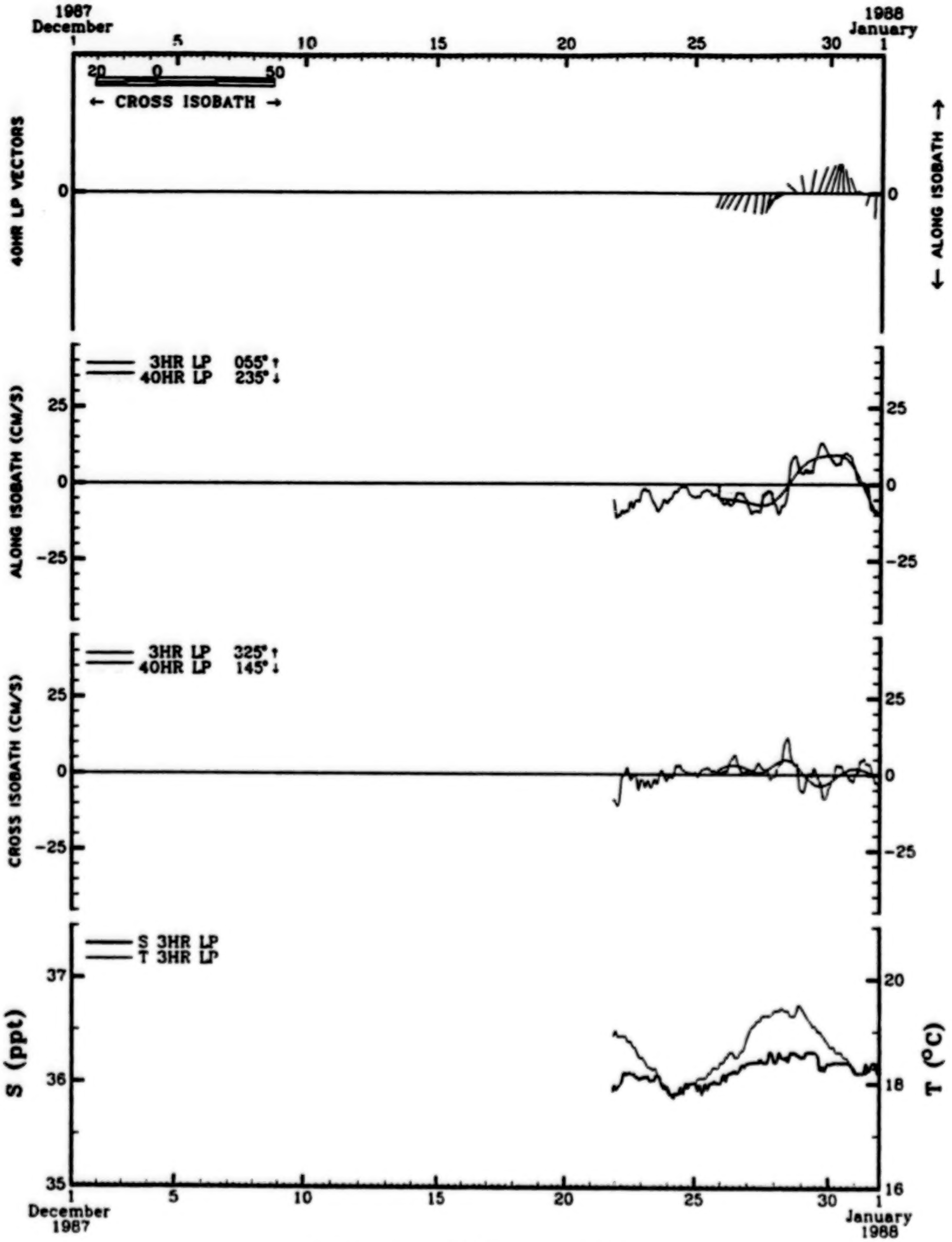

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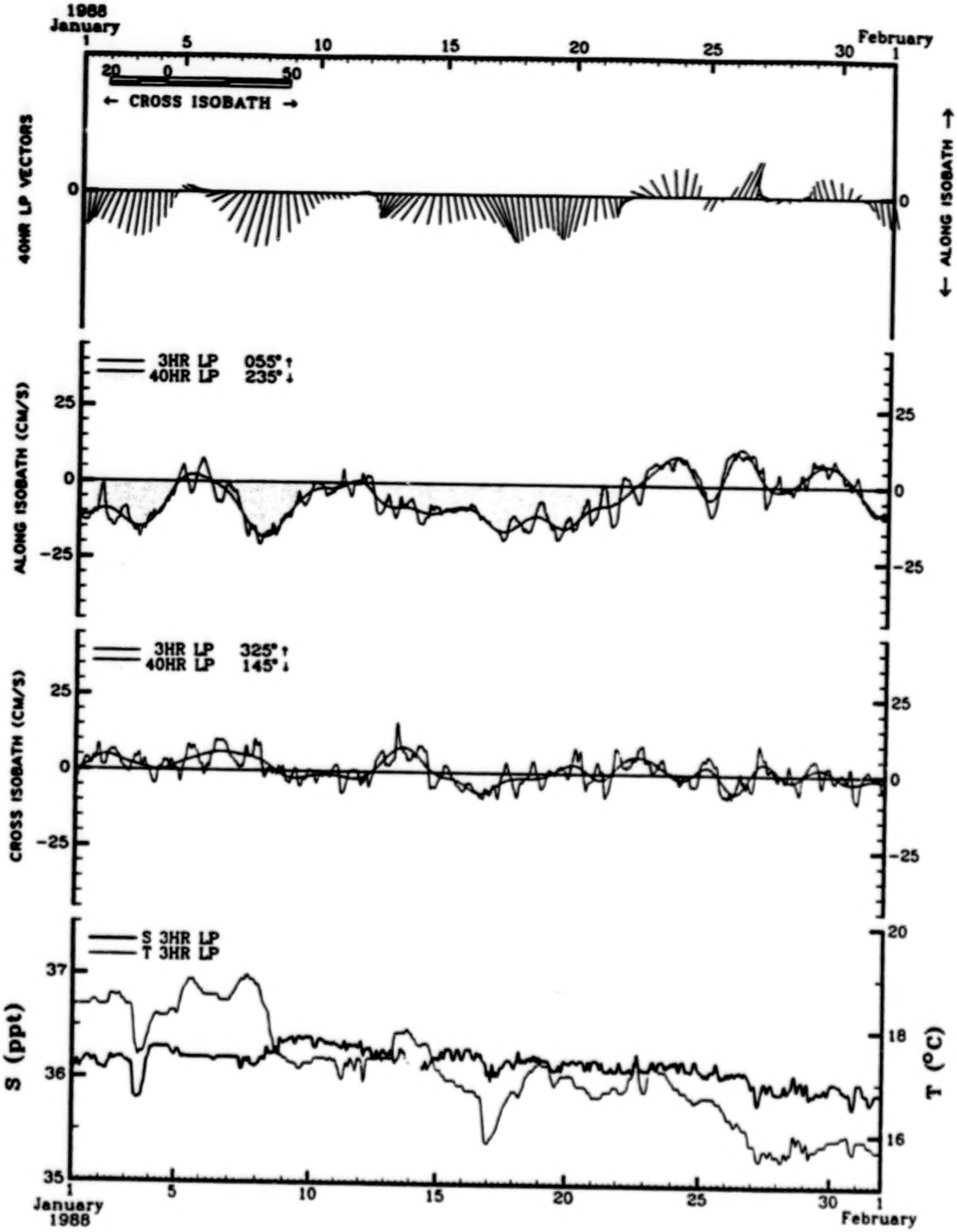

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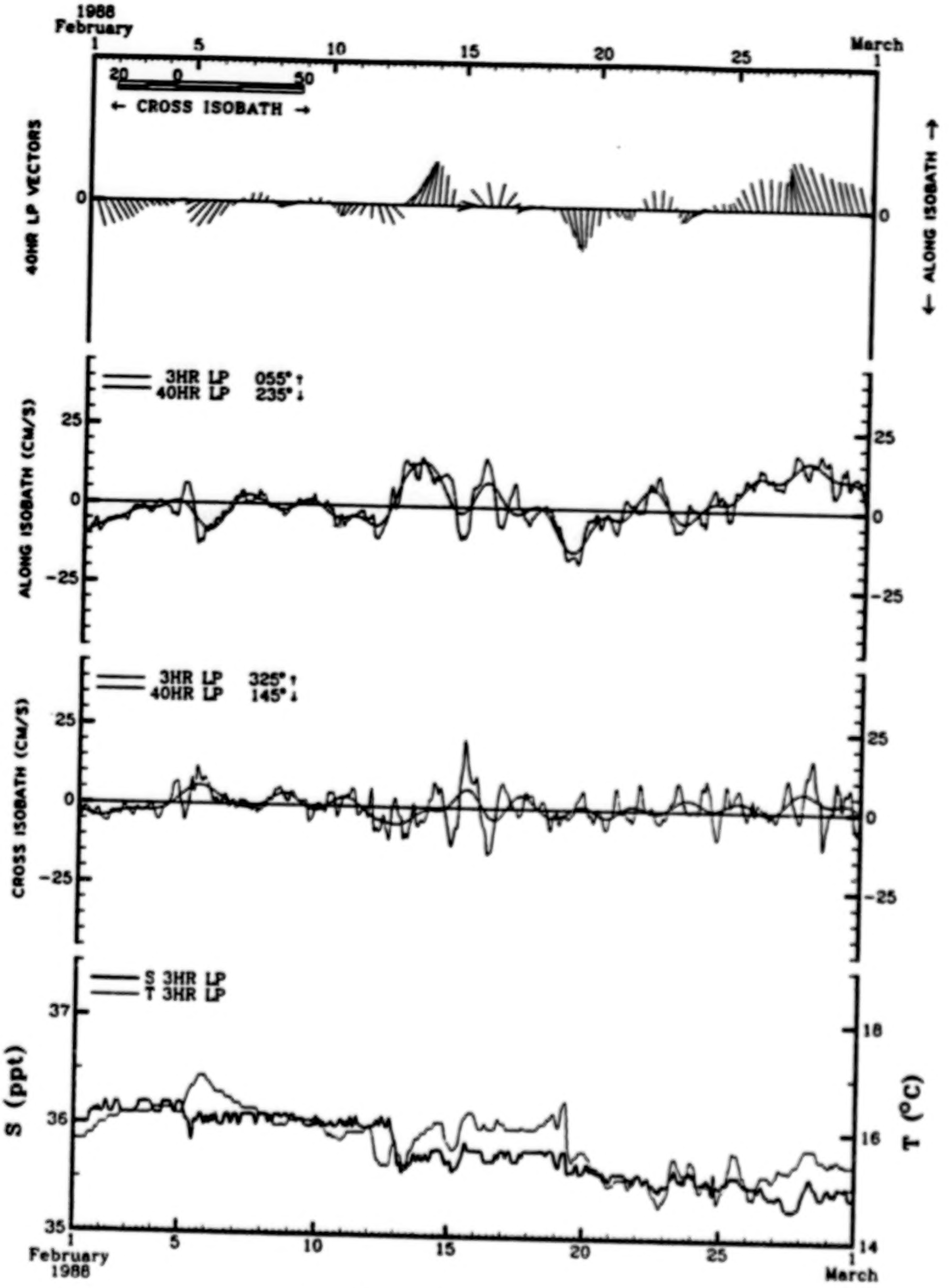

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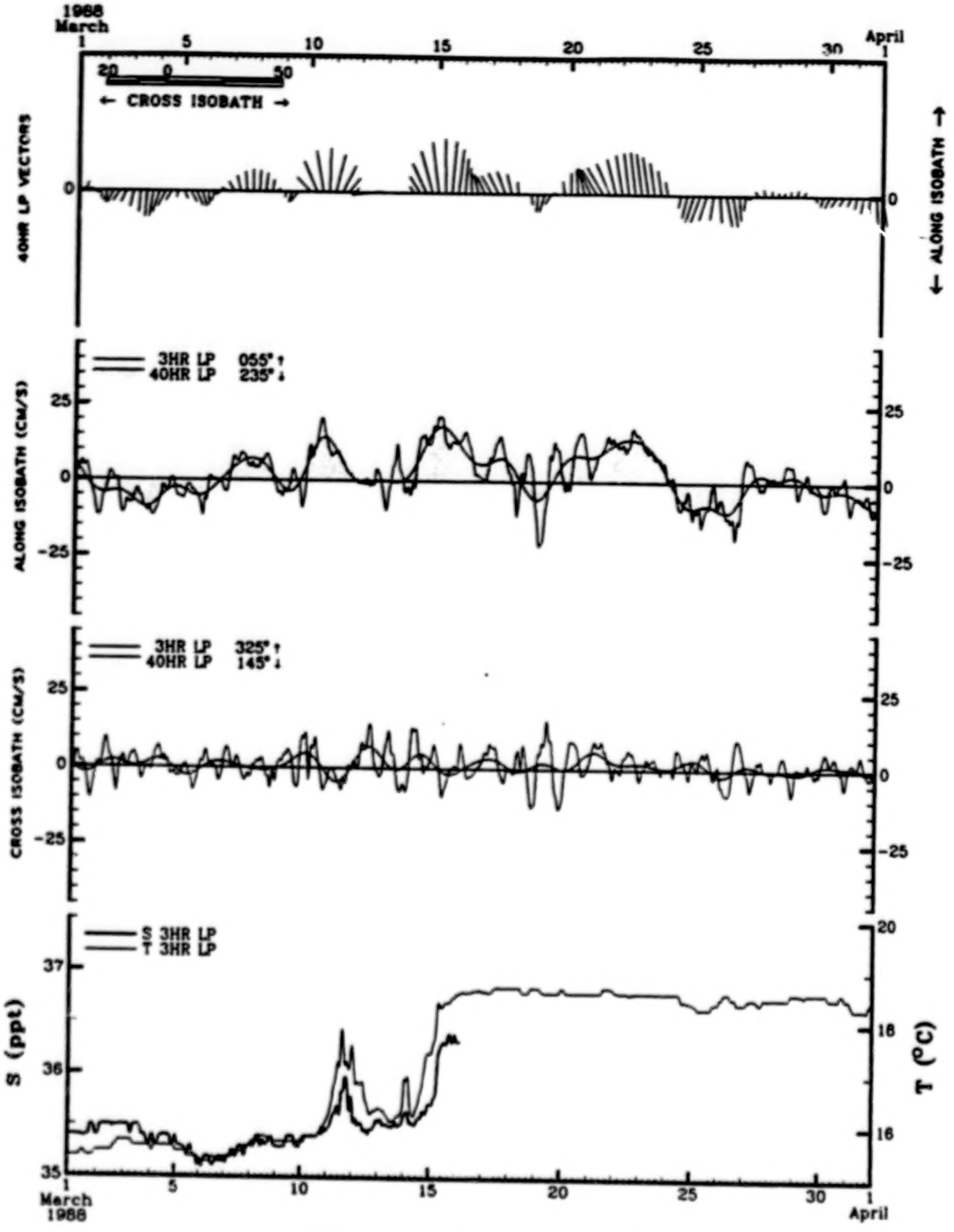

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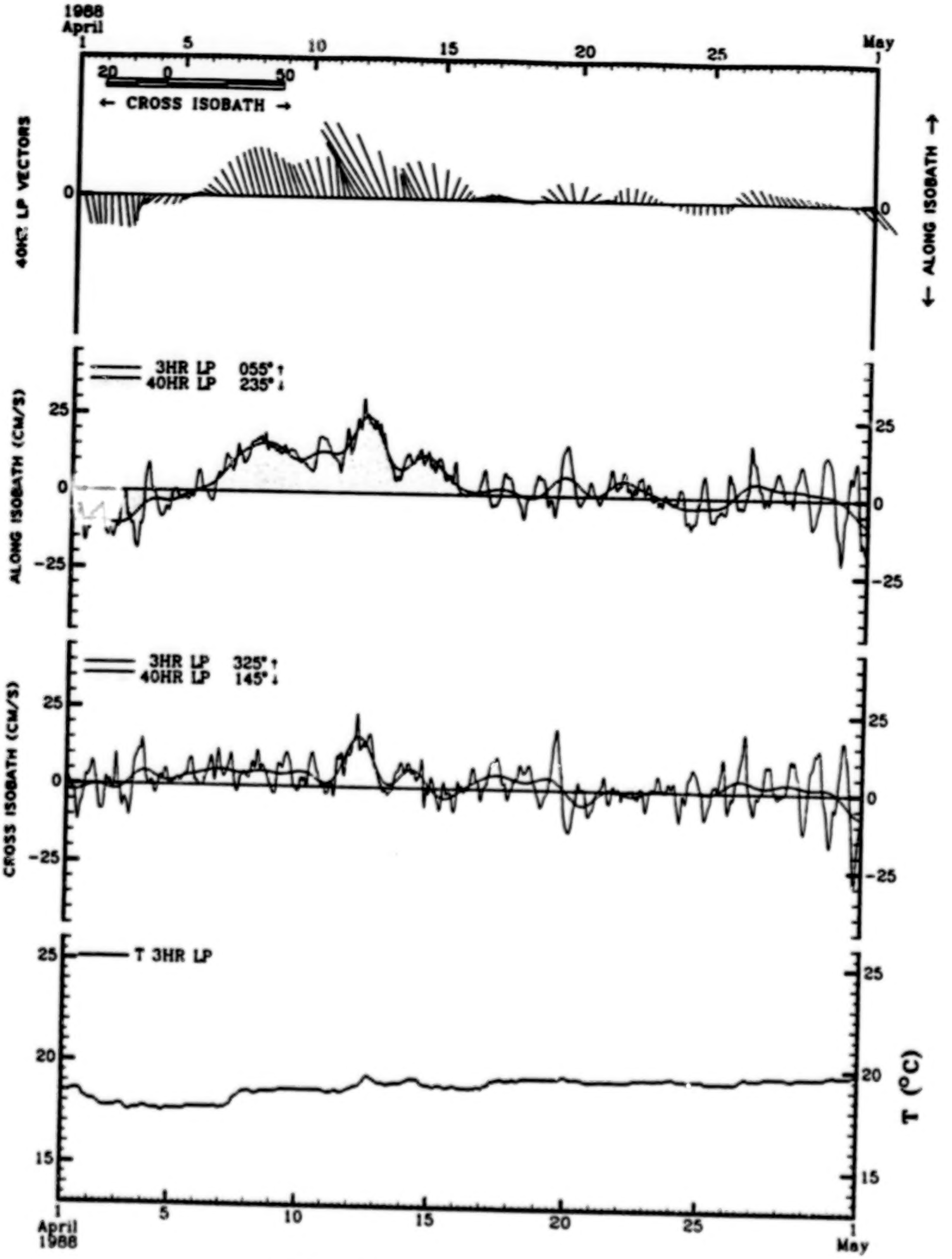

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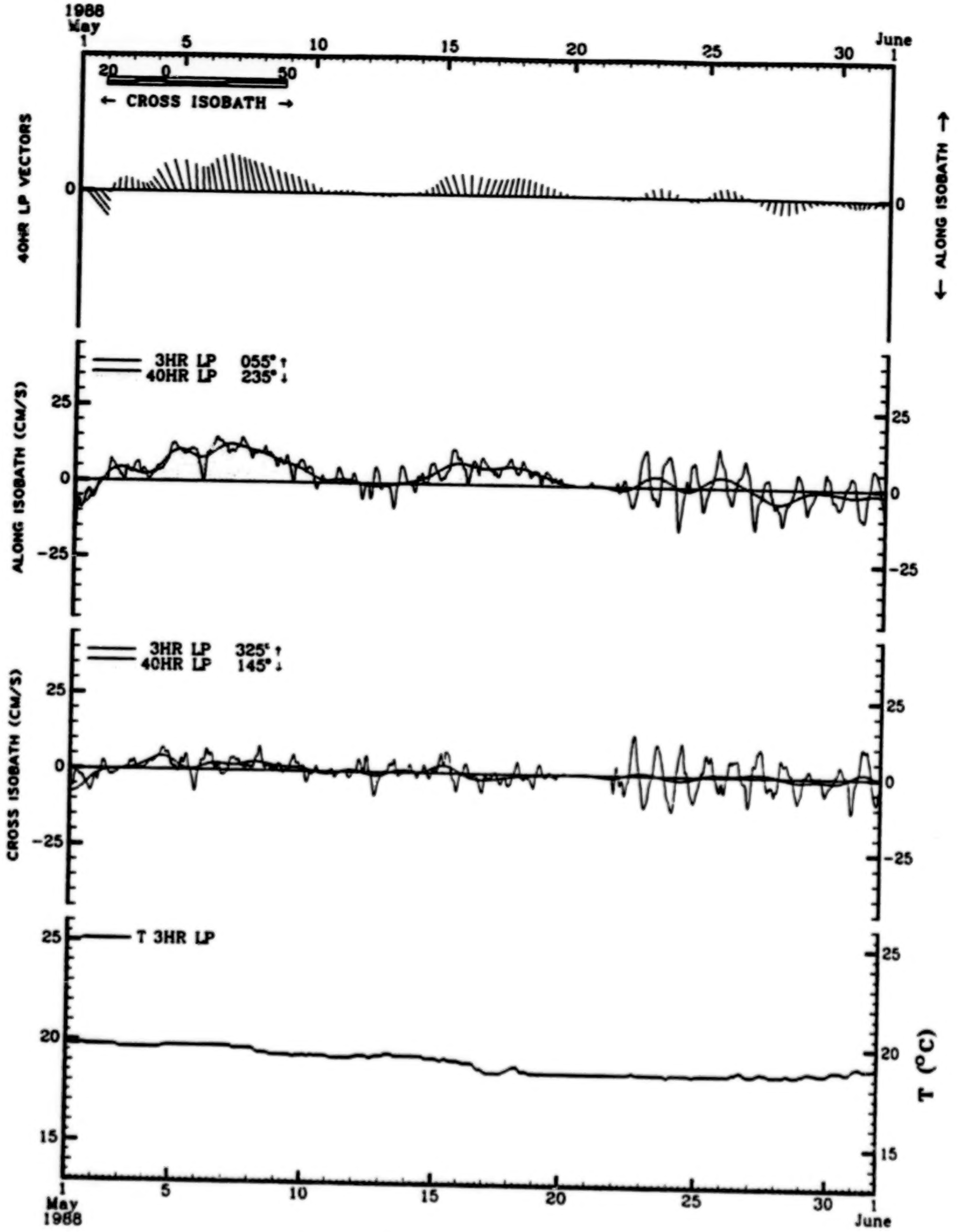

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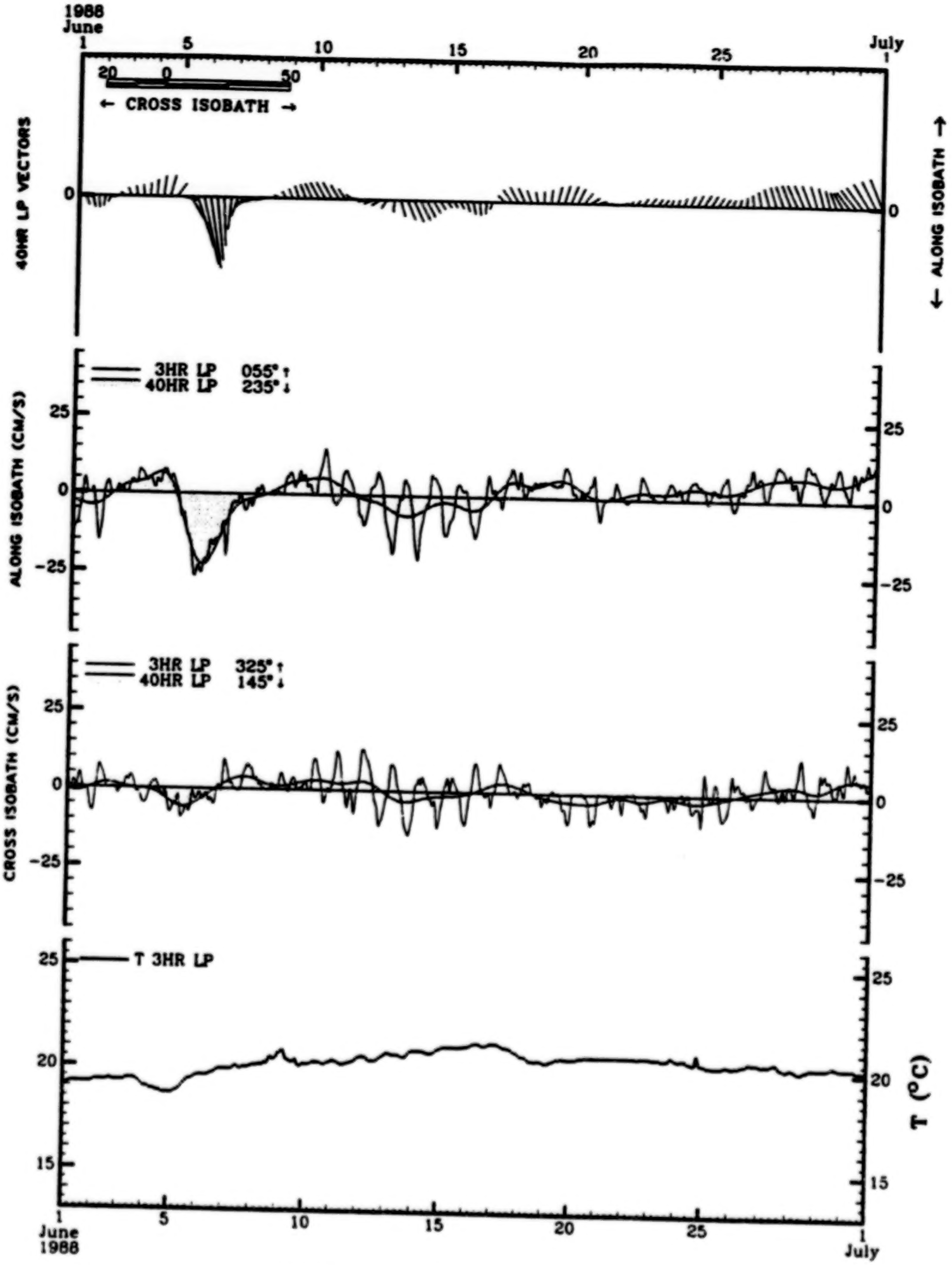

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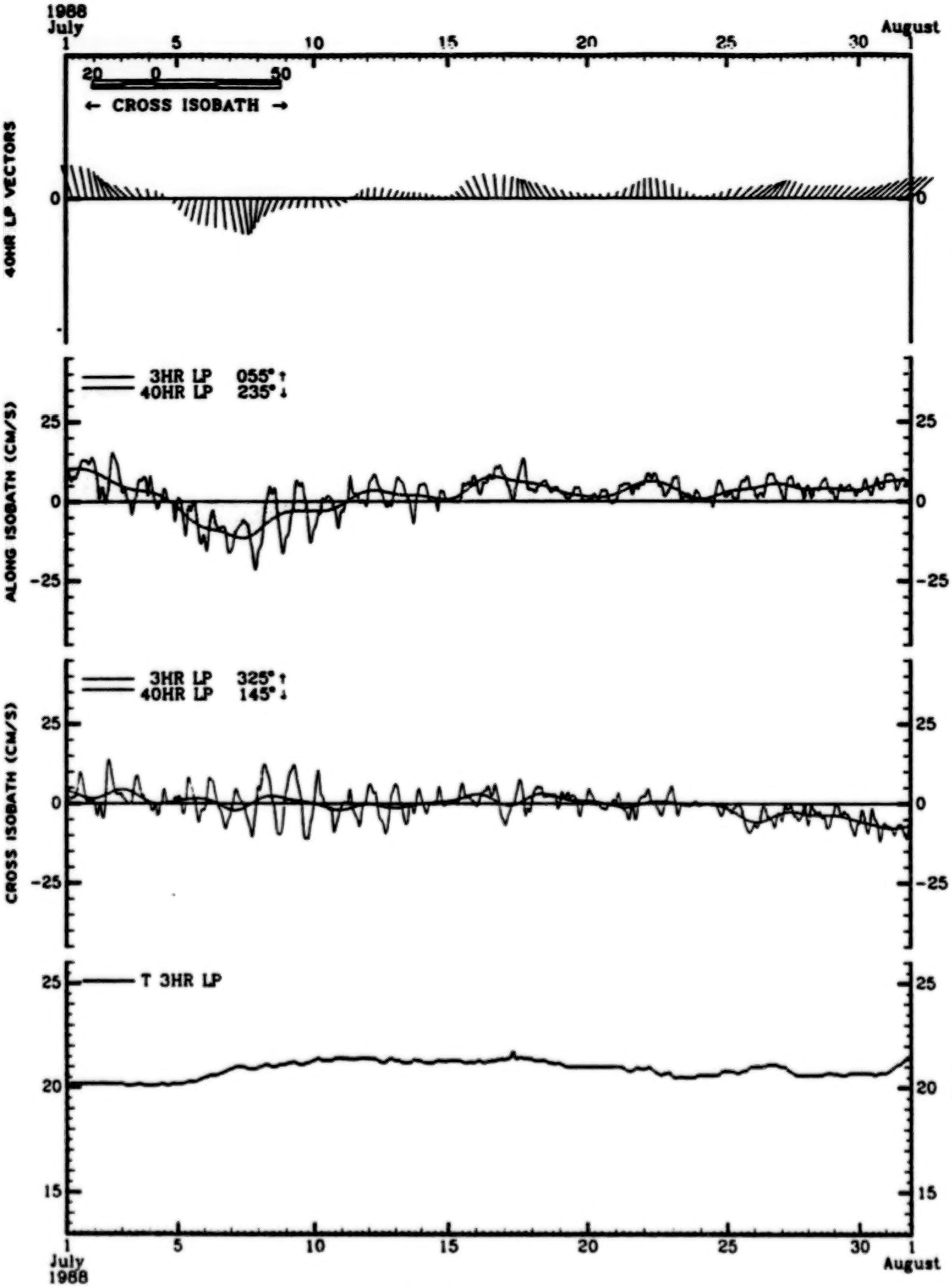

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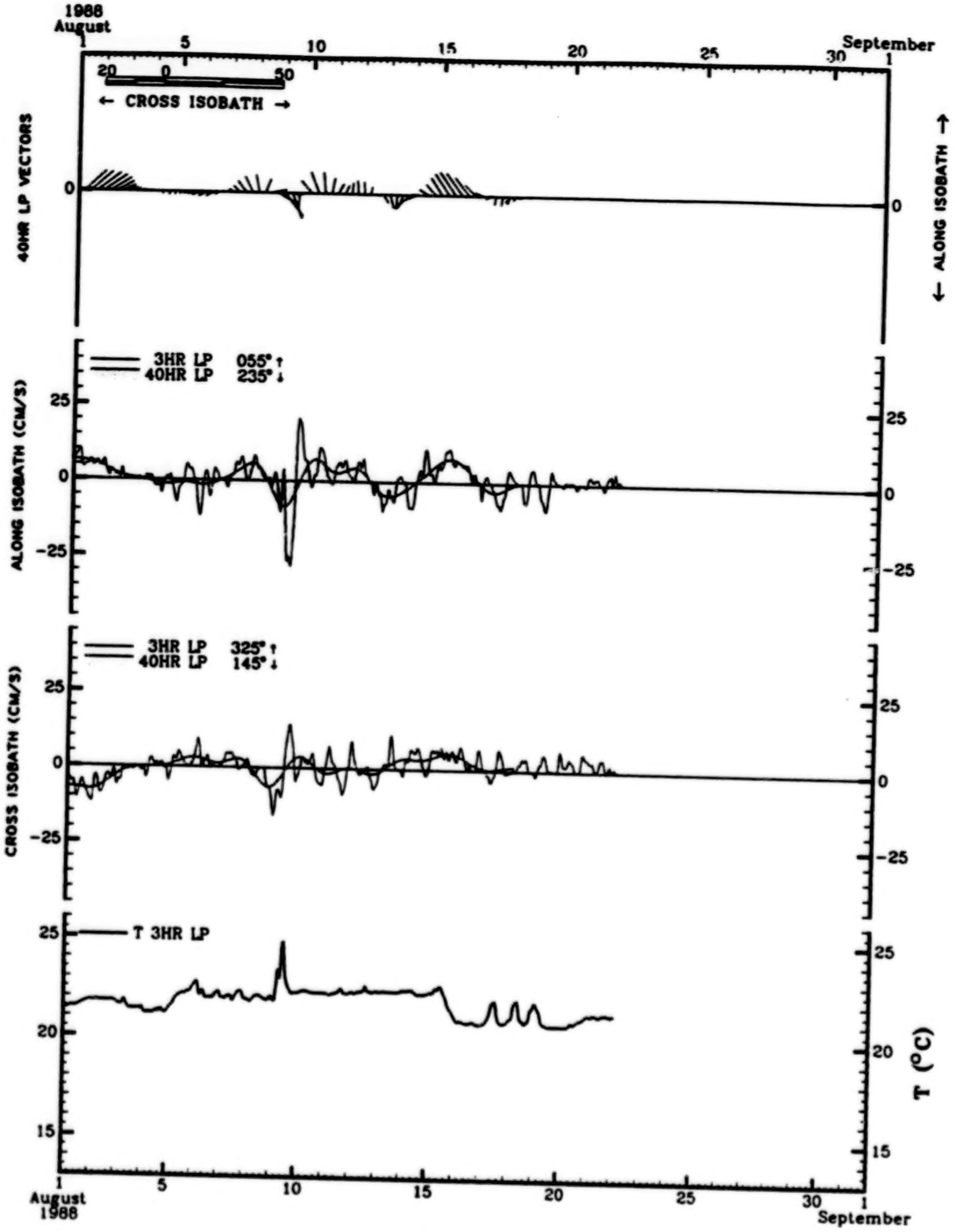
283



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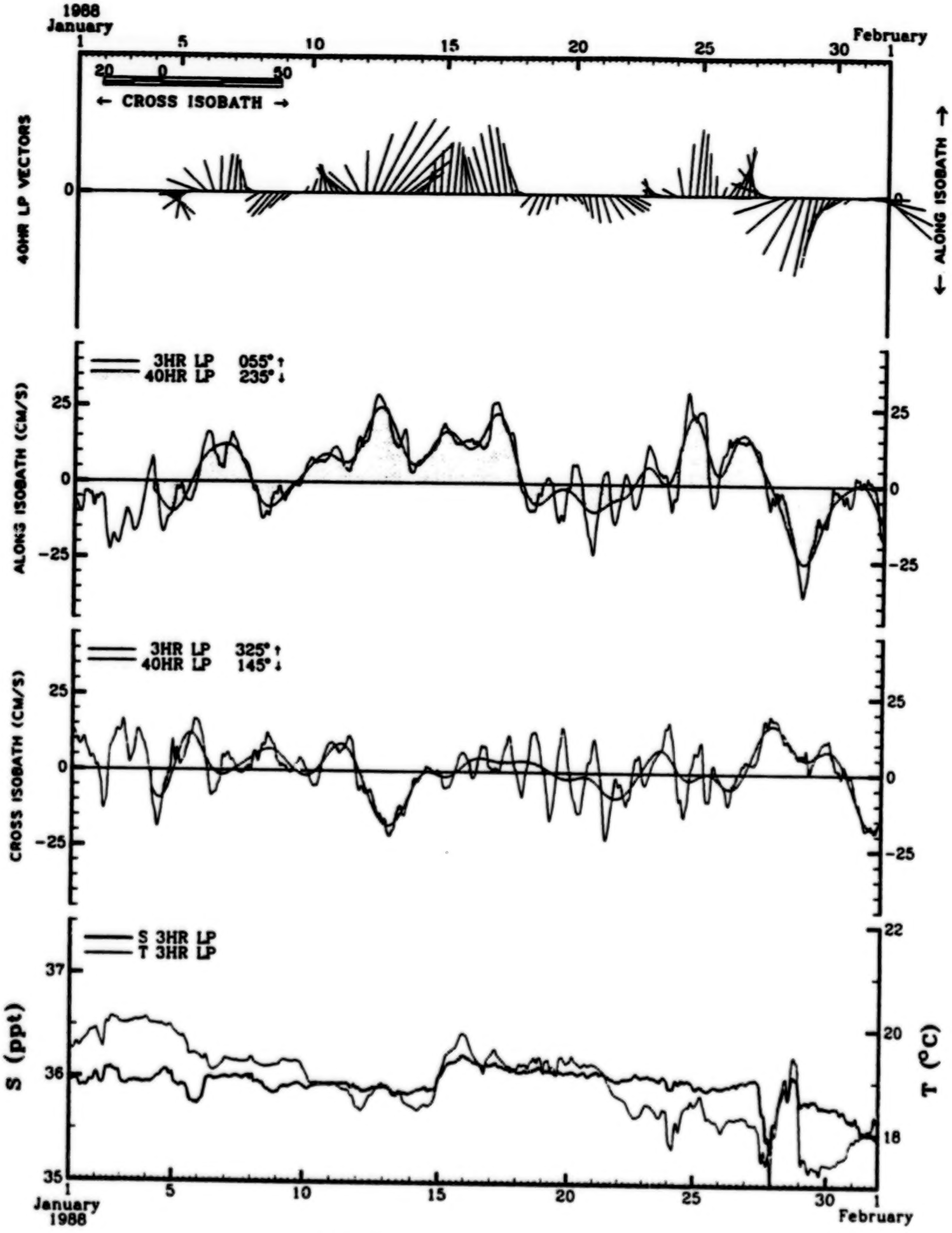

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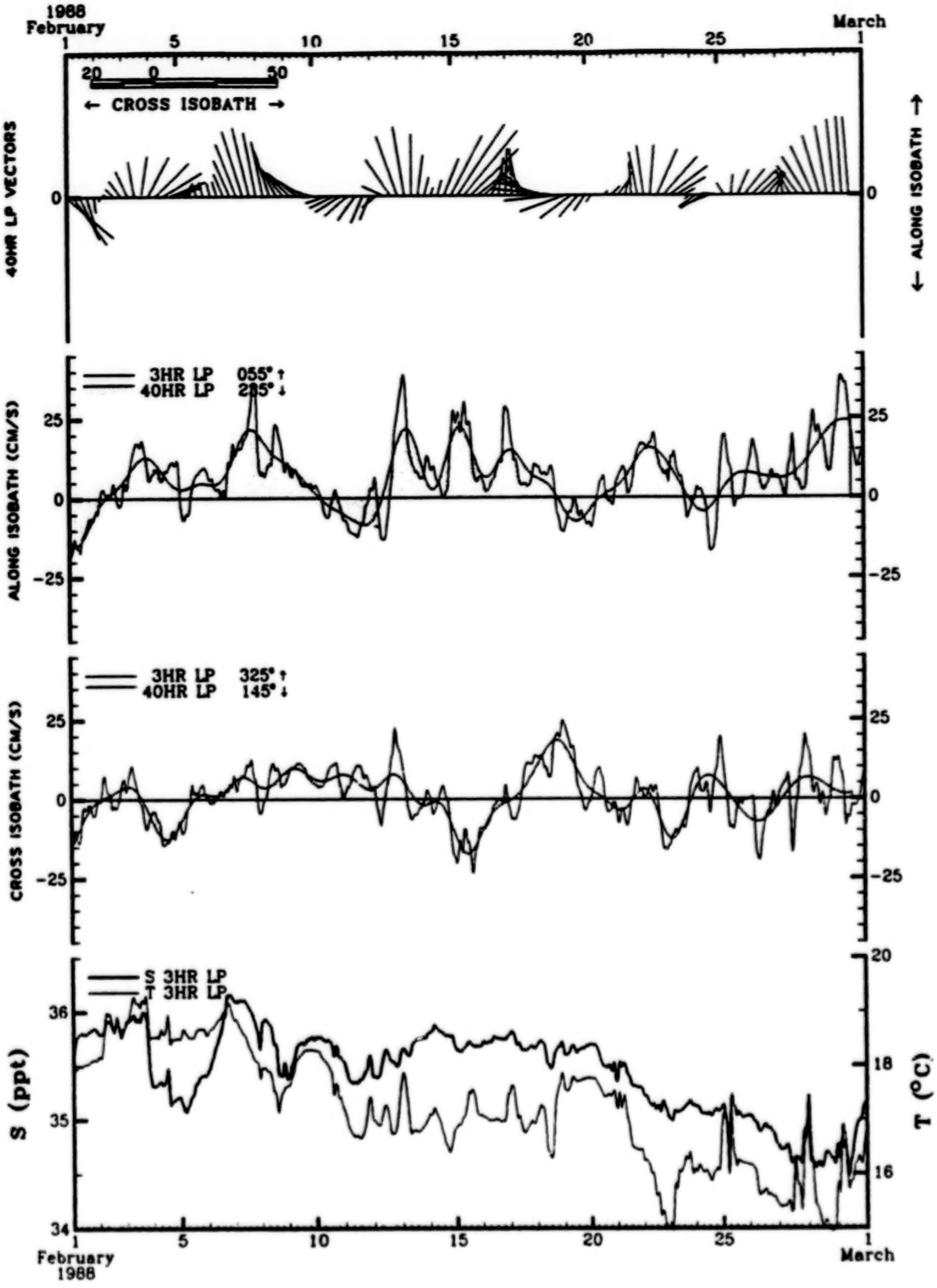

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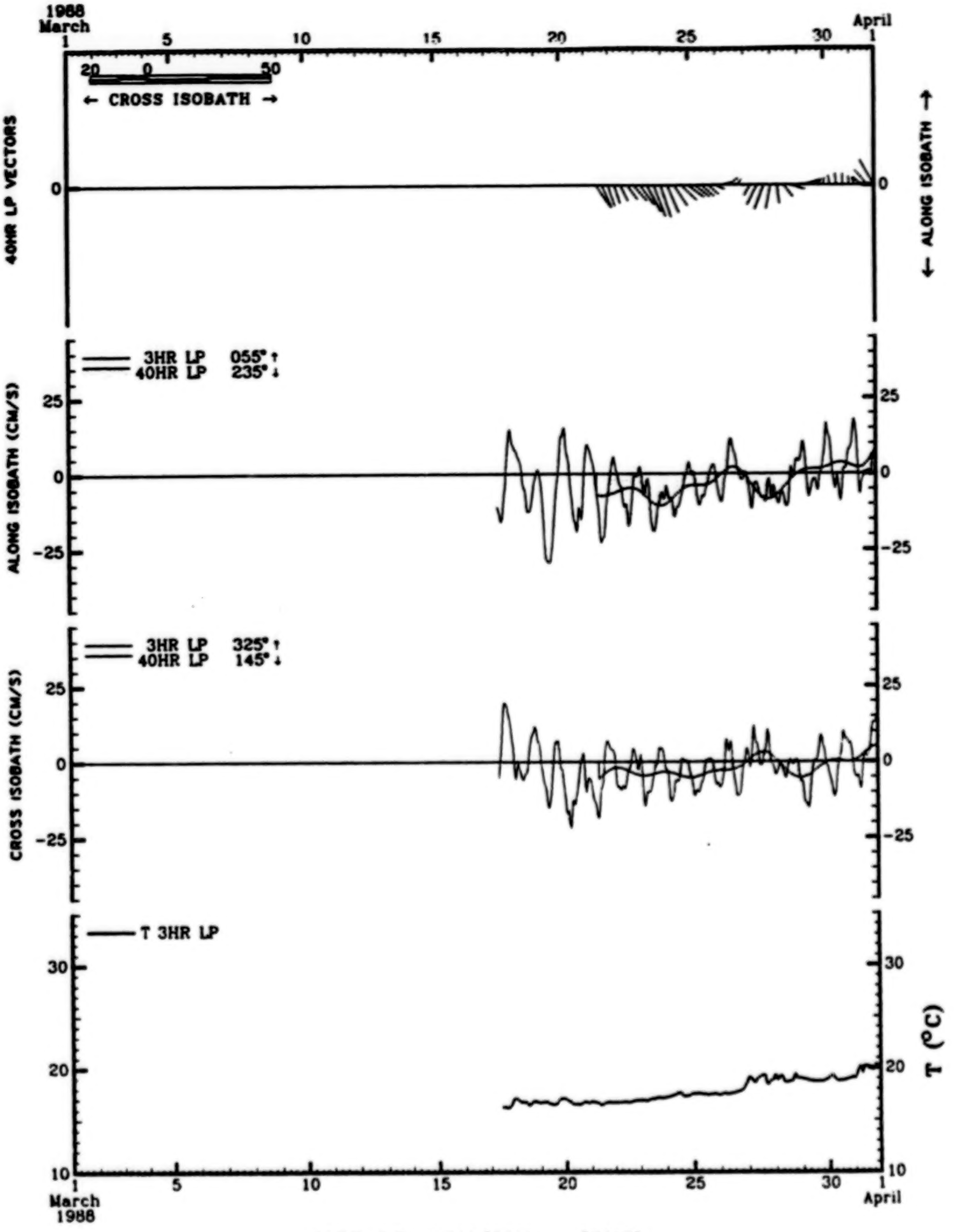

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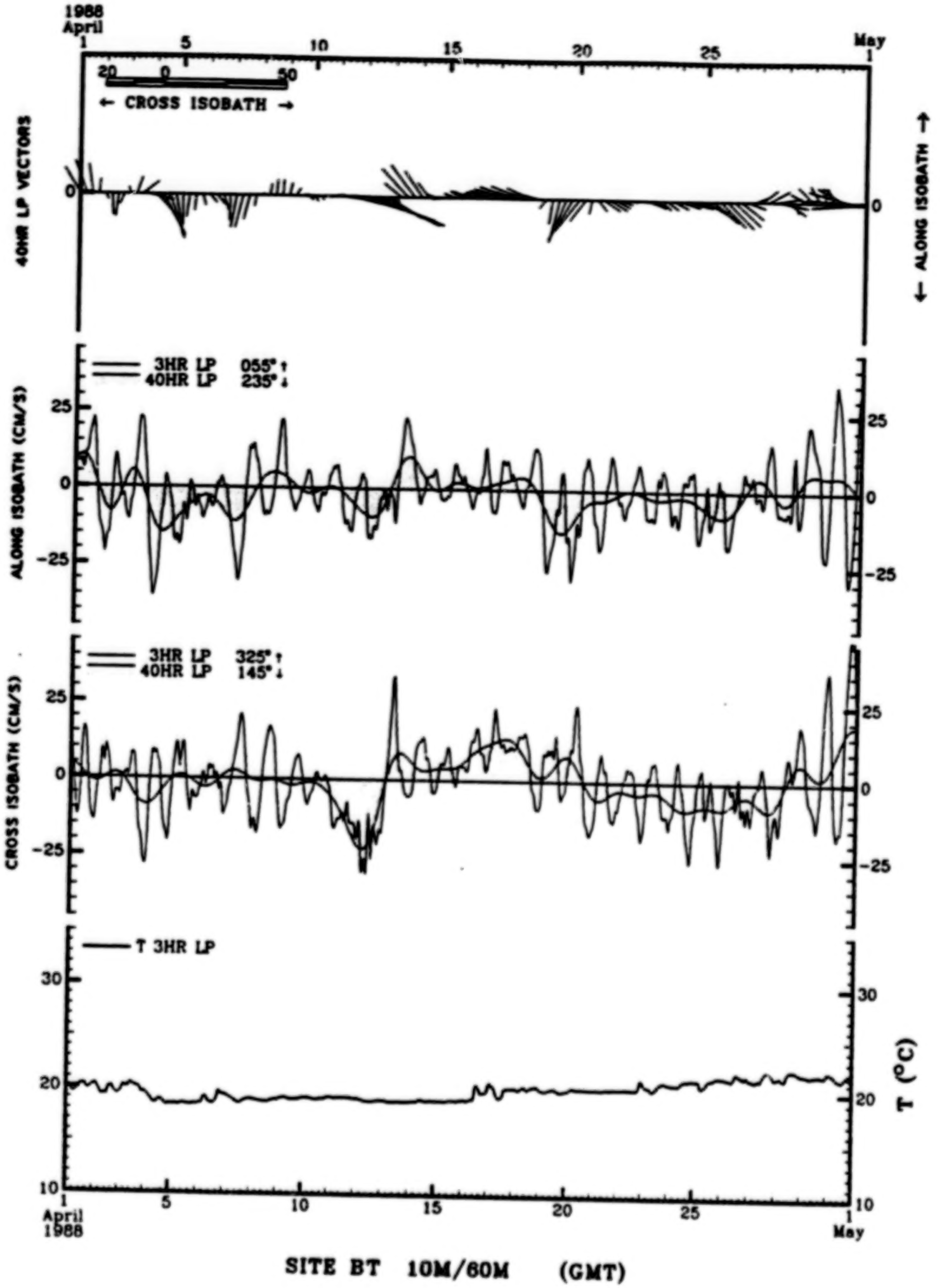

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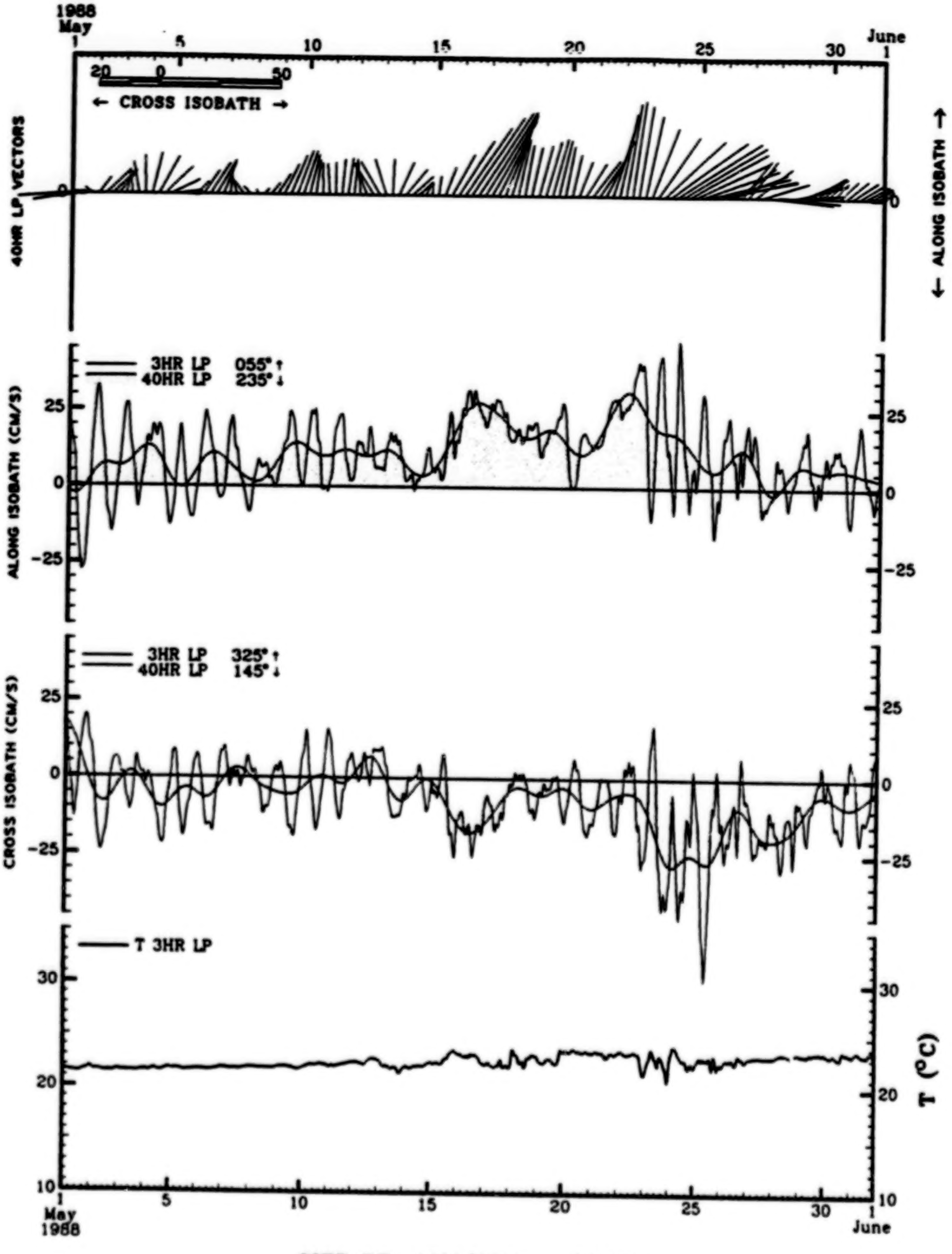

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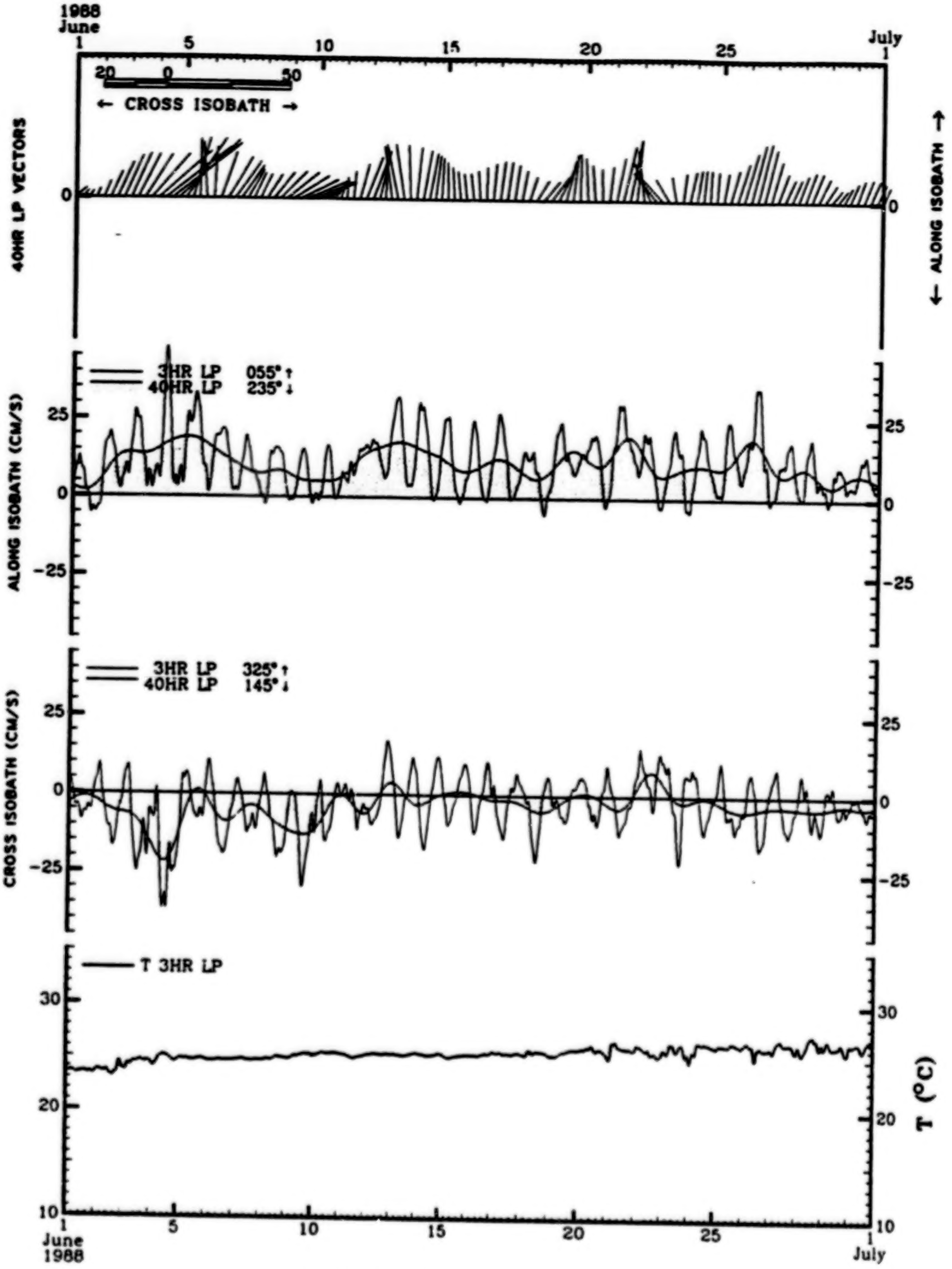

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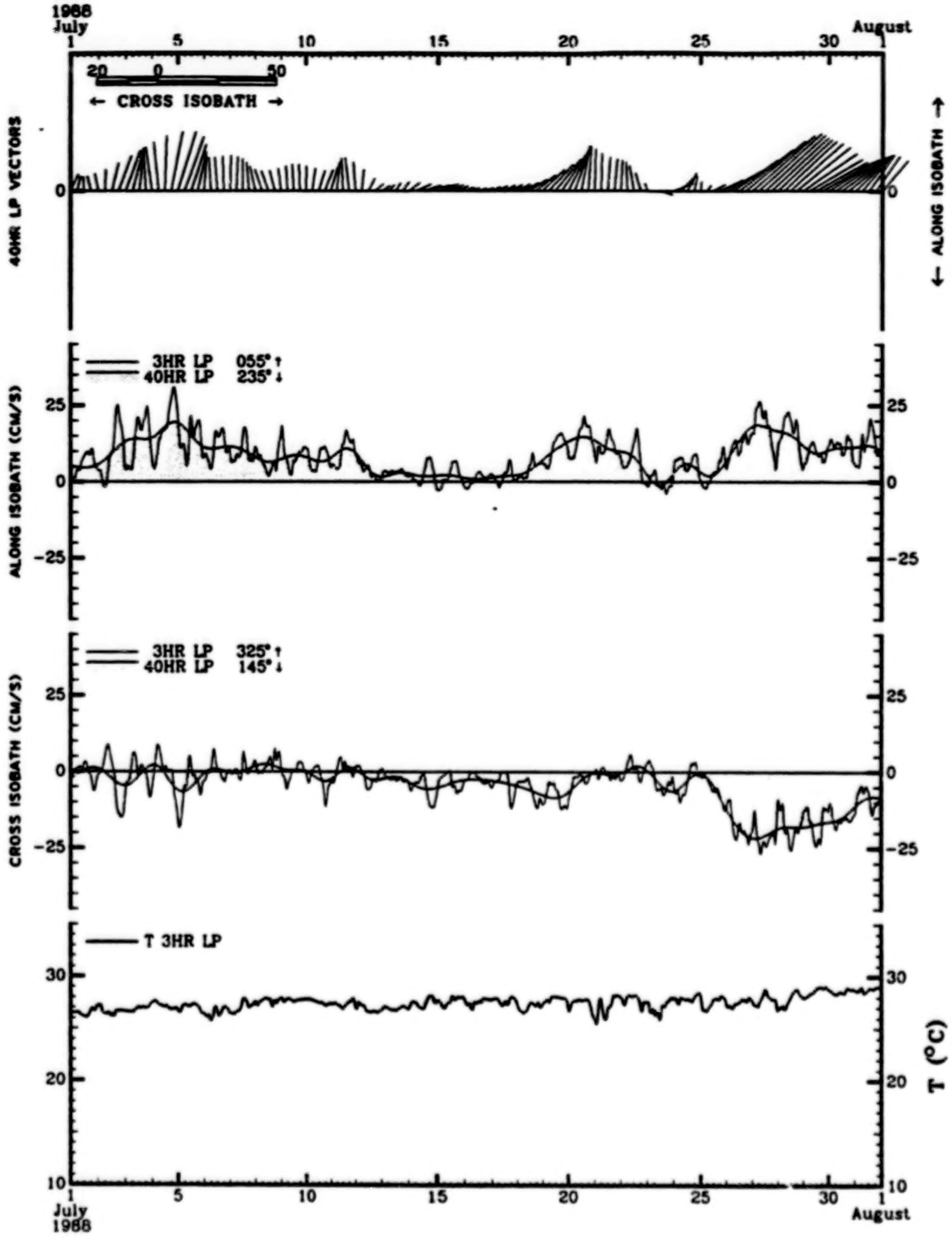

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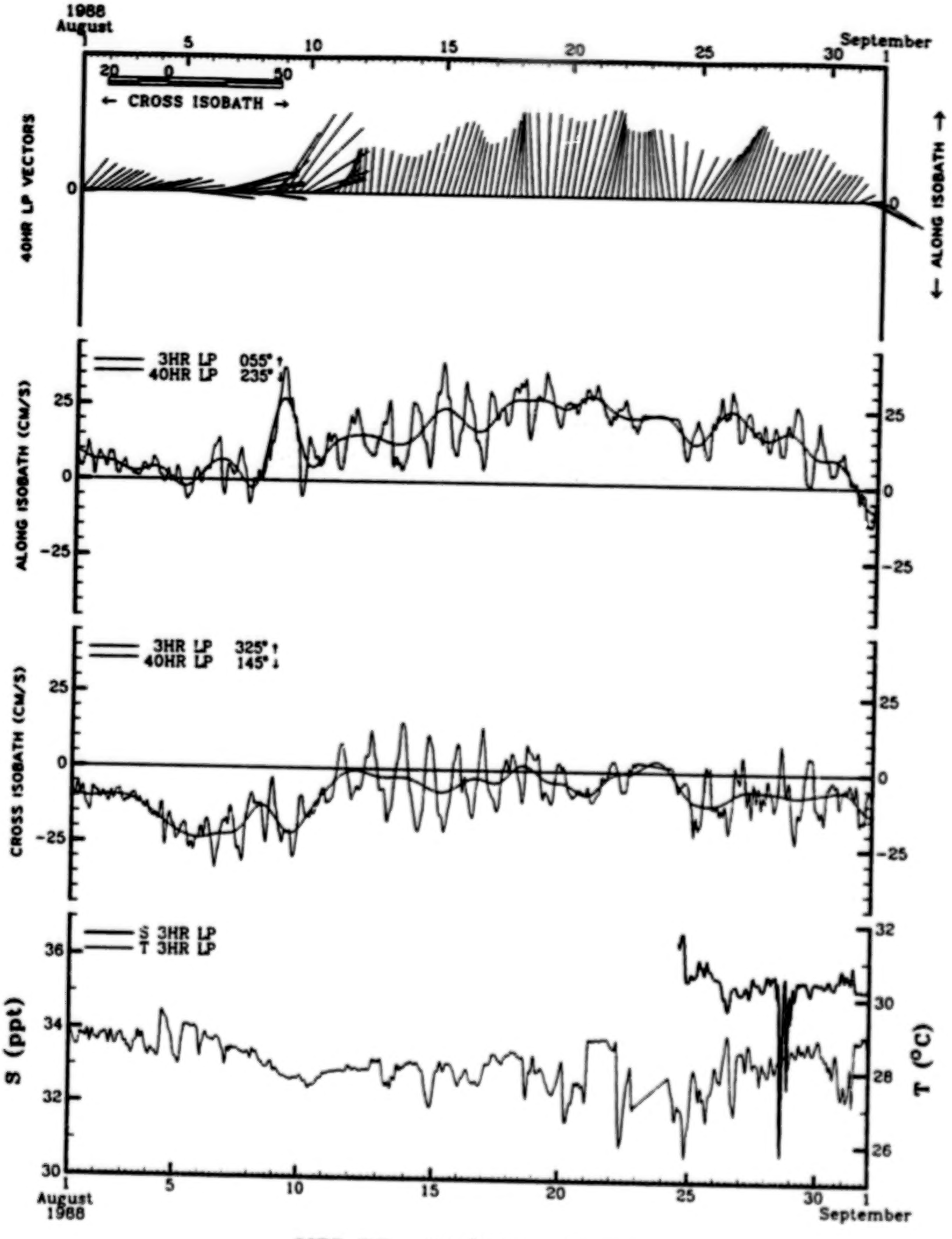

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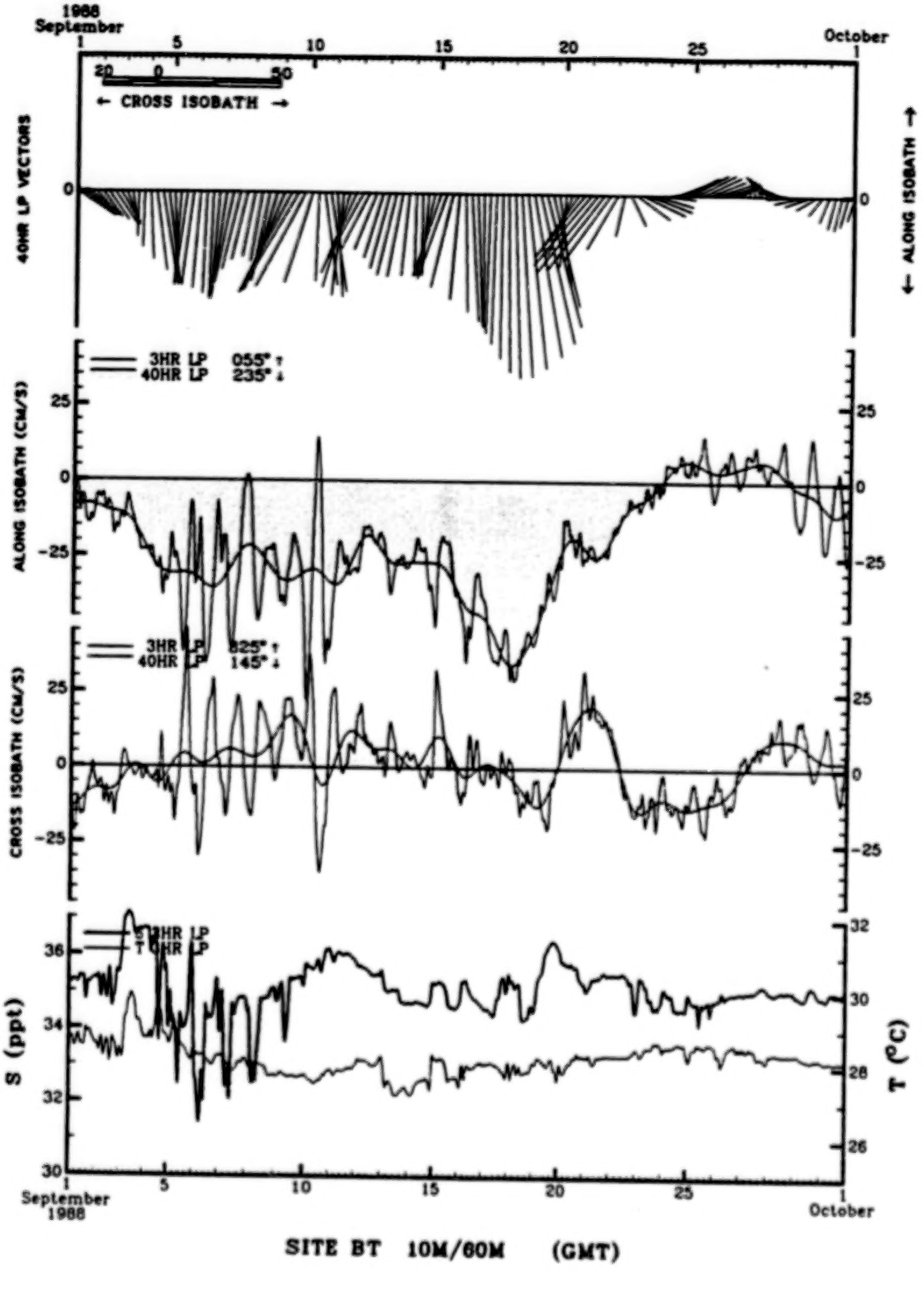

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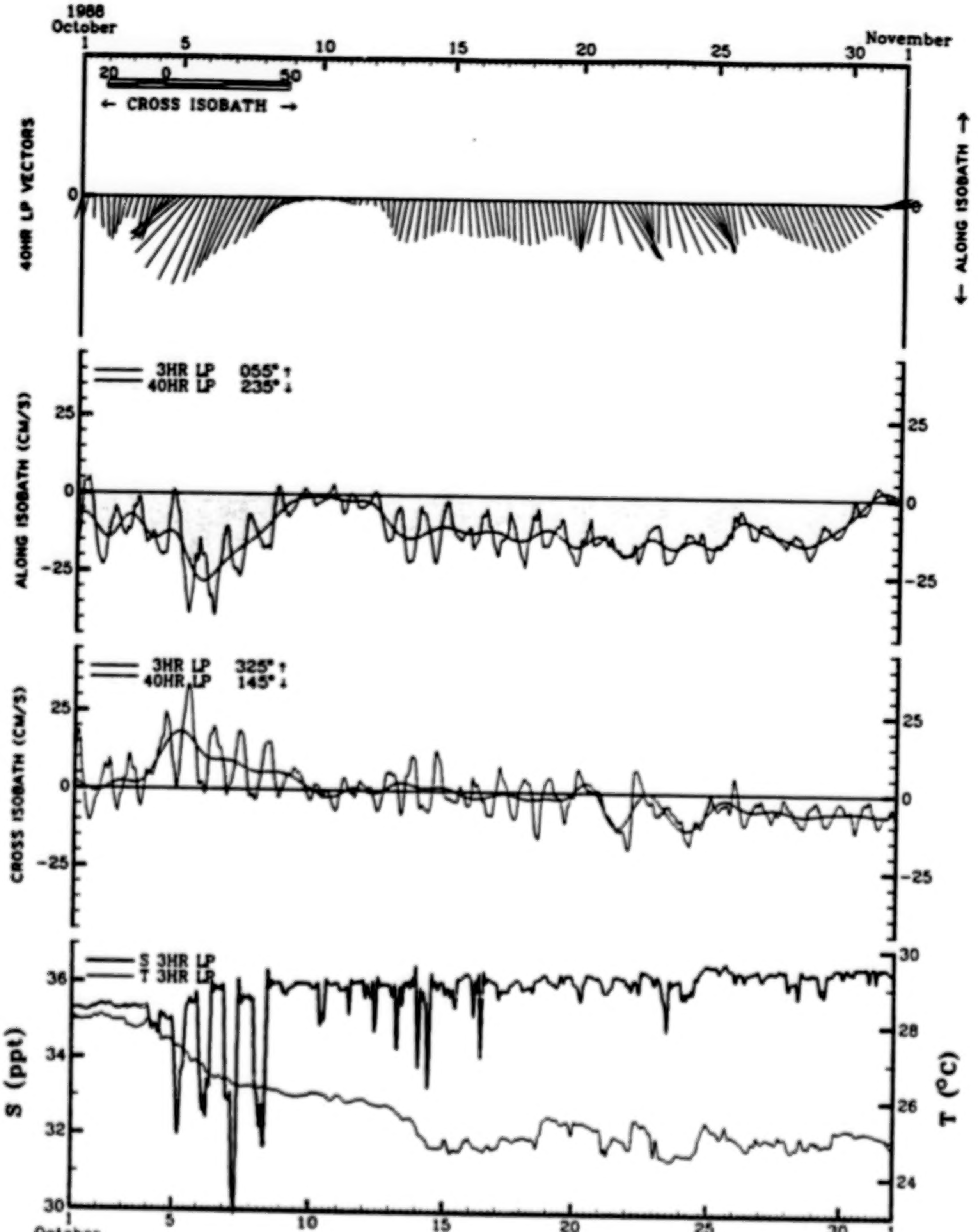

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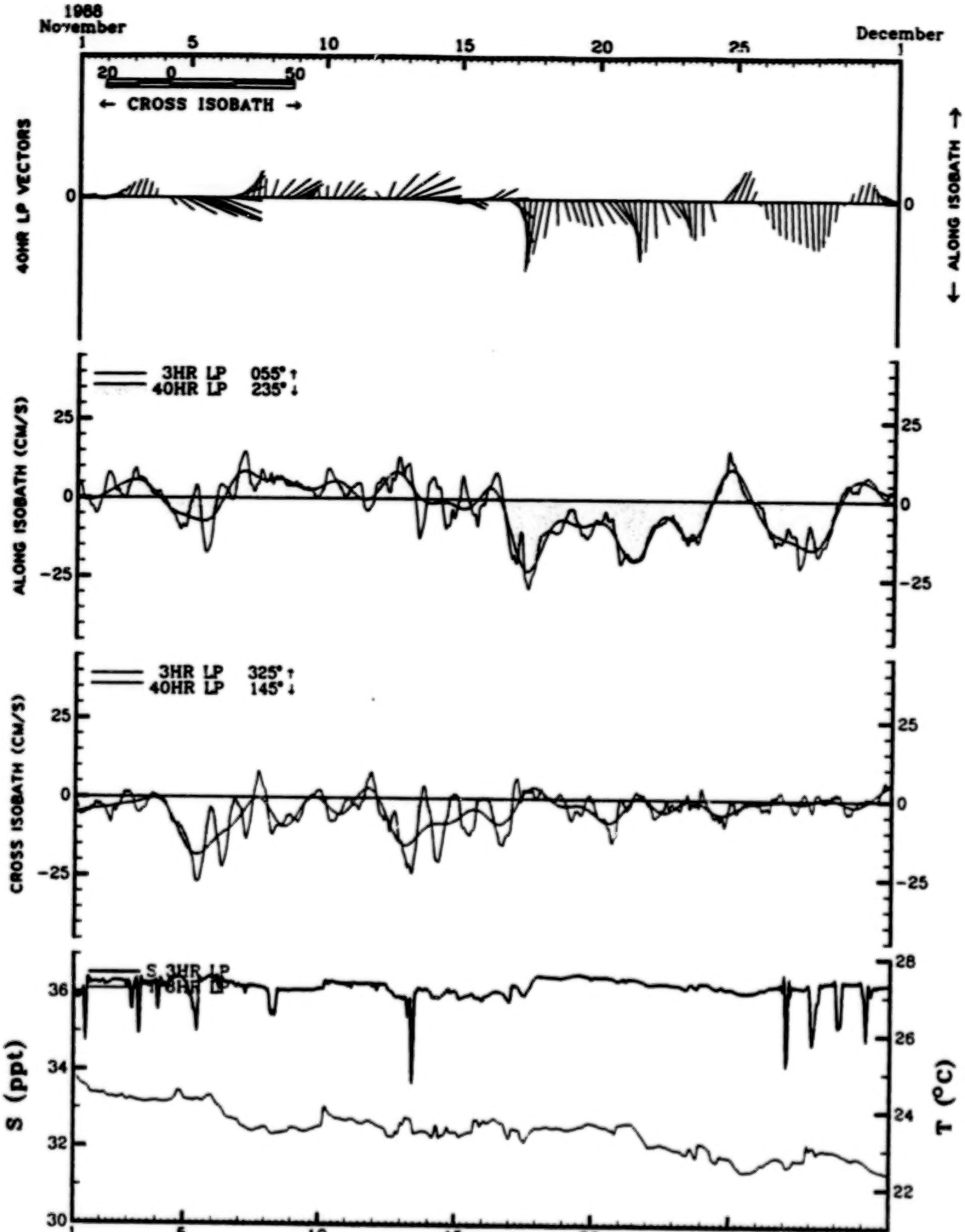
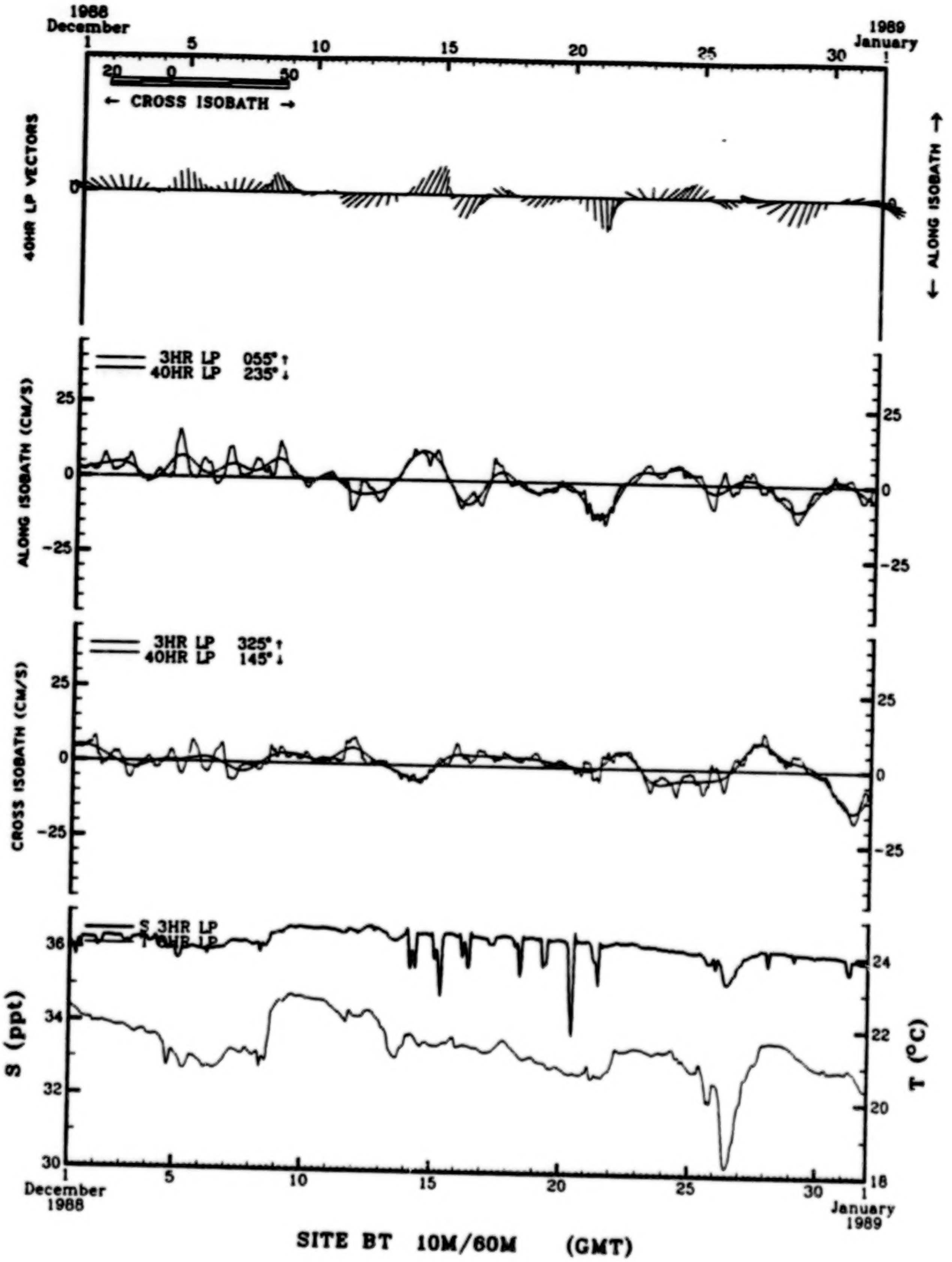


SITE BT 10M/60M (GMT)


1988
December
1
5
10
15
20
25
30
1989
January
1
20
0
50
← CROSS ISOBATH →
40HR LP VECTORS
0
← ALONG ISOBATH →
3HR LP 055° ↑
40HR LP 235° ↓
ALONG ISOBATH (CM/S)
25
0
-25
3HR LP 325° ↑
40HR LP 145° ↓
CROSS ISOBATH (CM/S)
25
0
-25
S 3HR LP
T 3HR LP
S (ppt)
36
34
32
30
T (°C)
24
22
20
18
December
1988
January
1989
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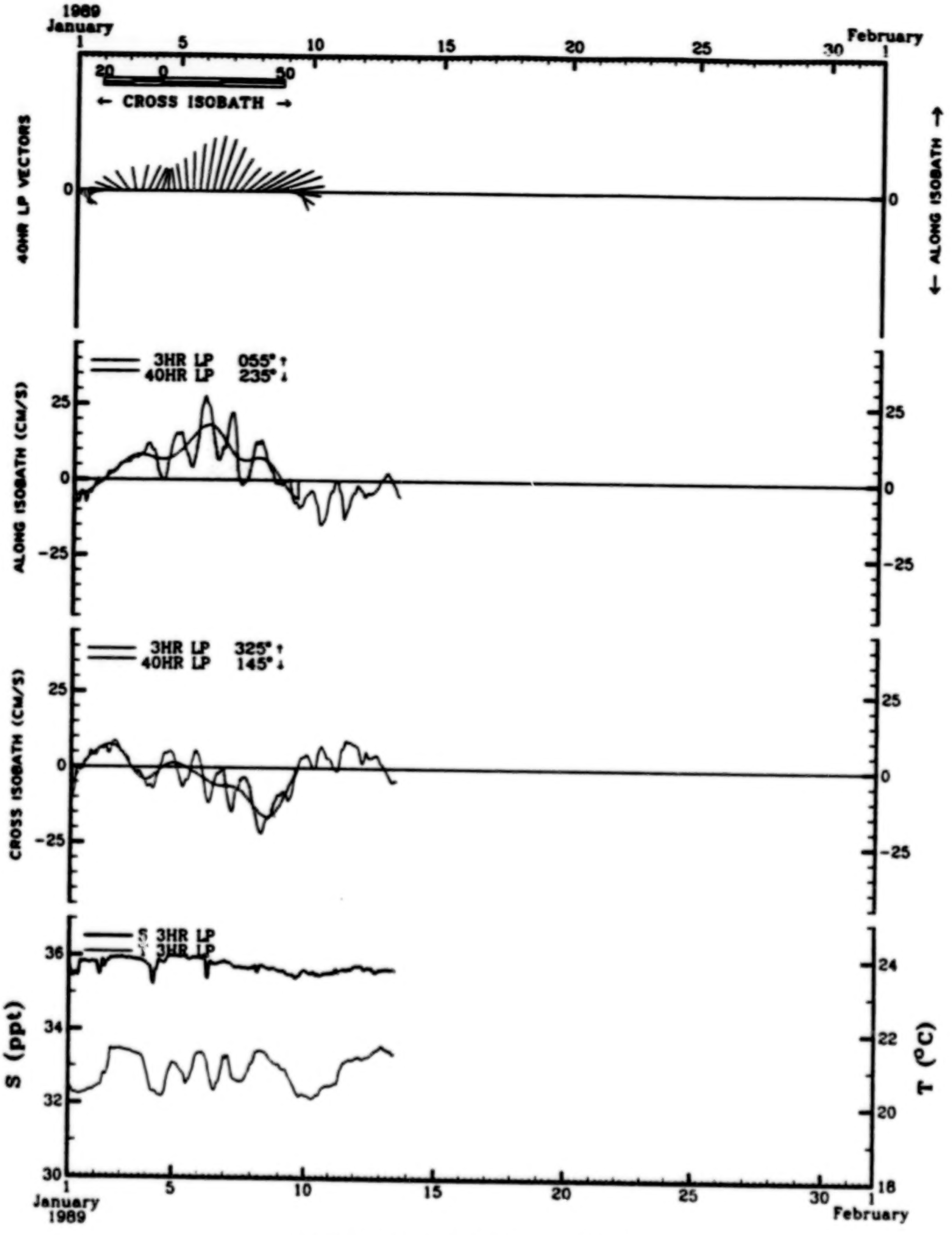

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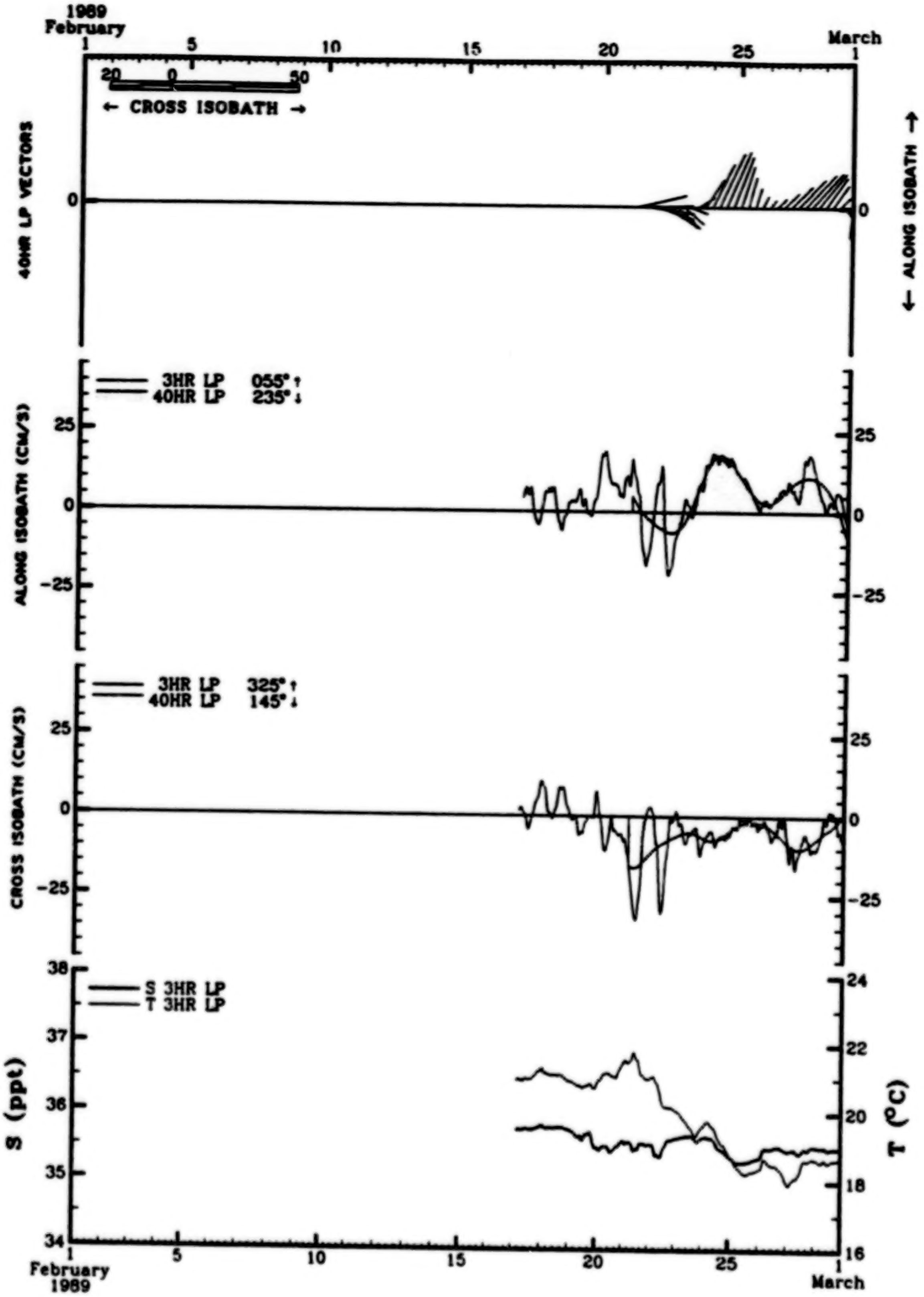

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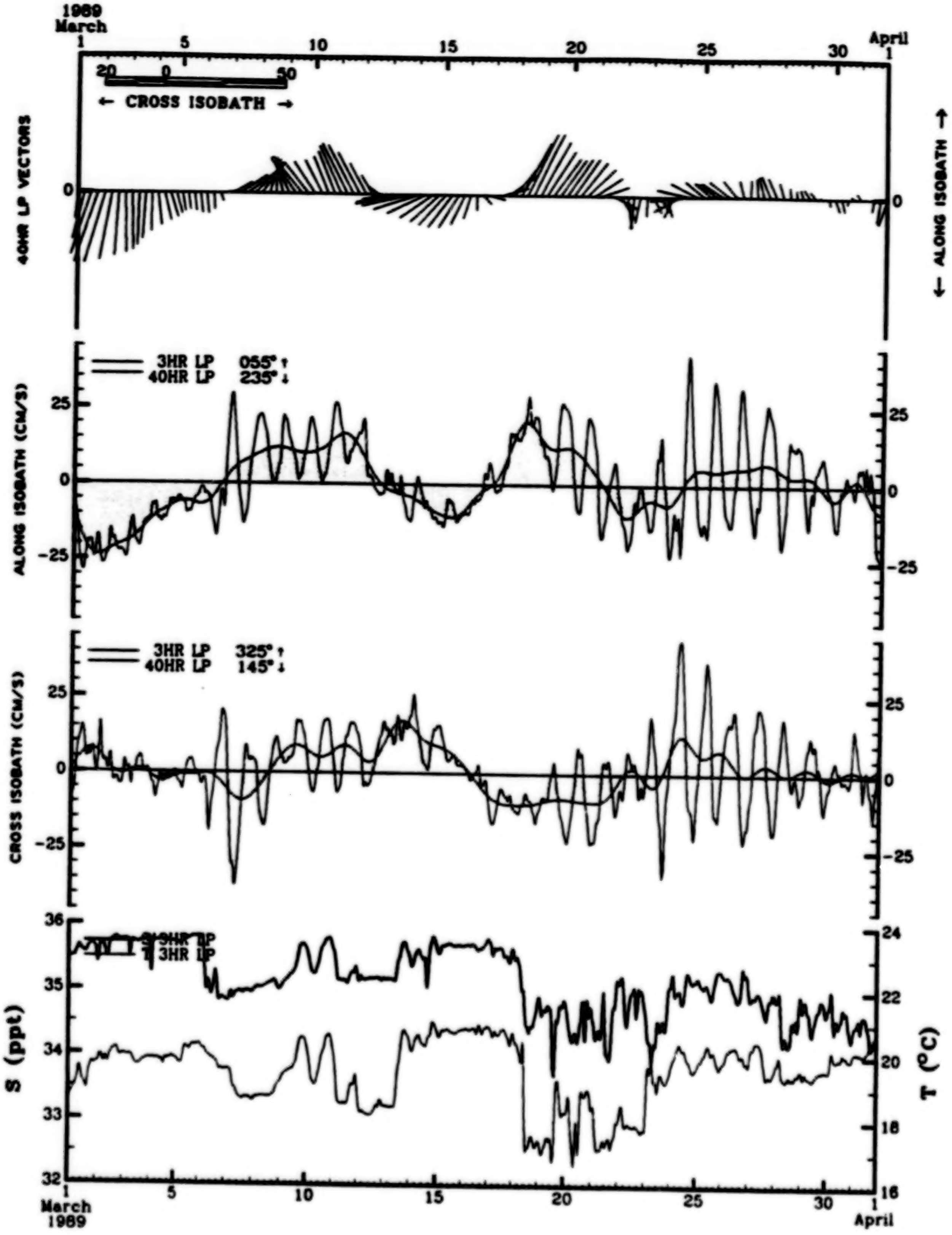

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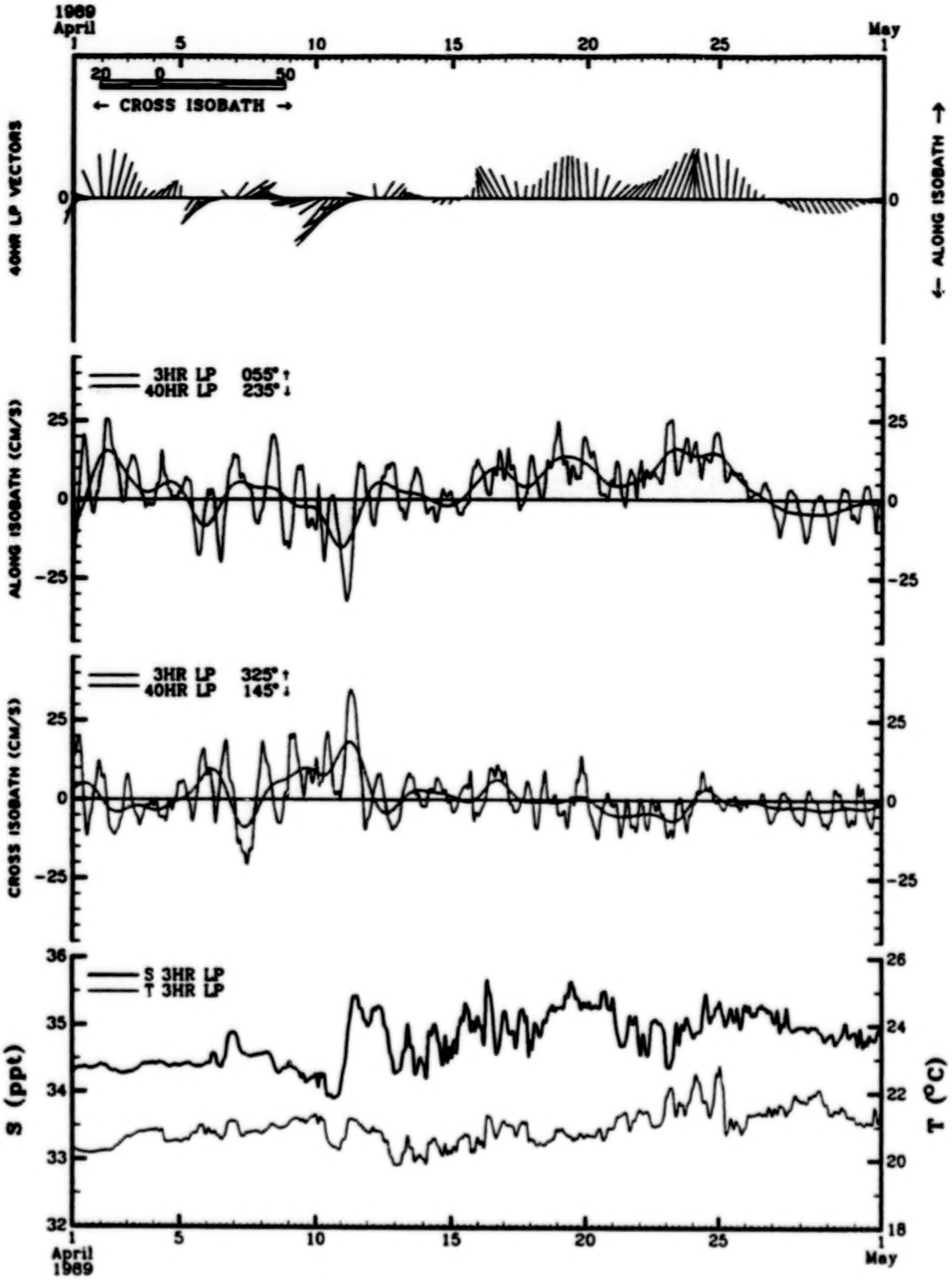

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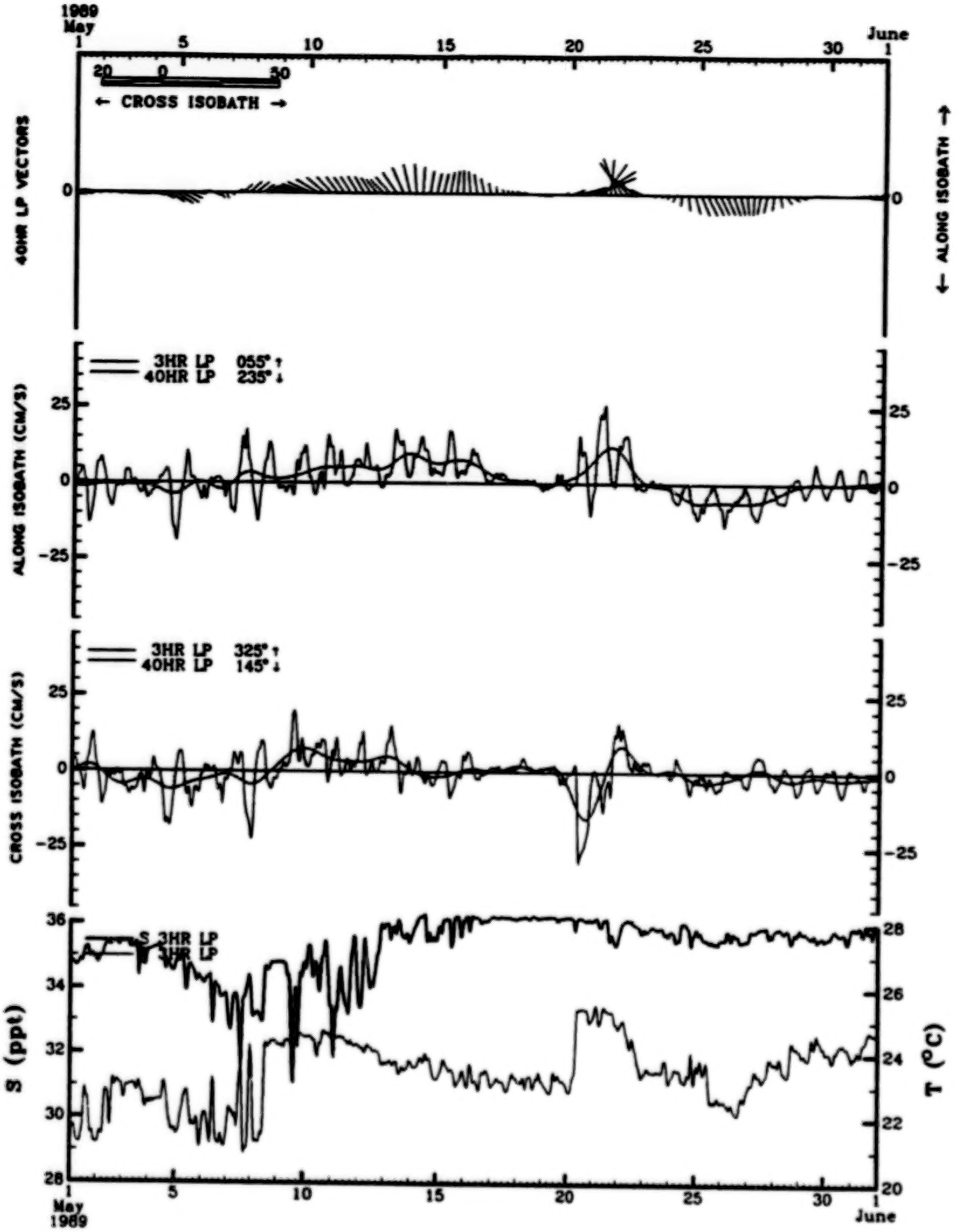

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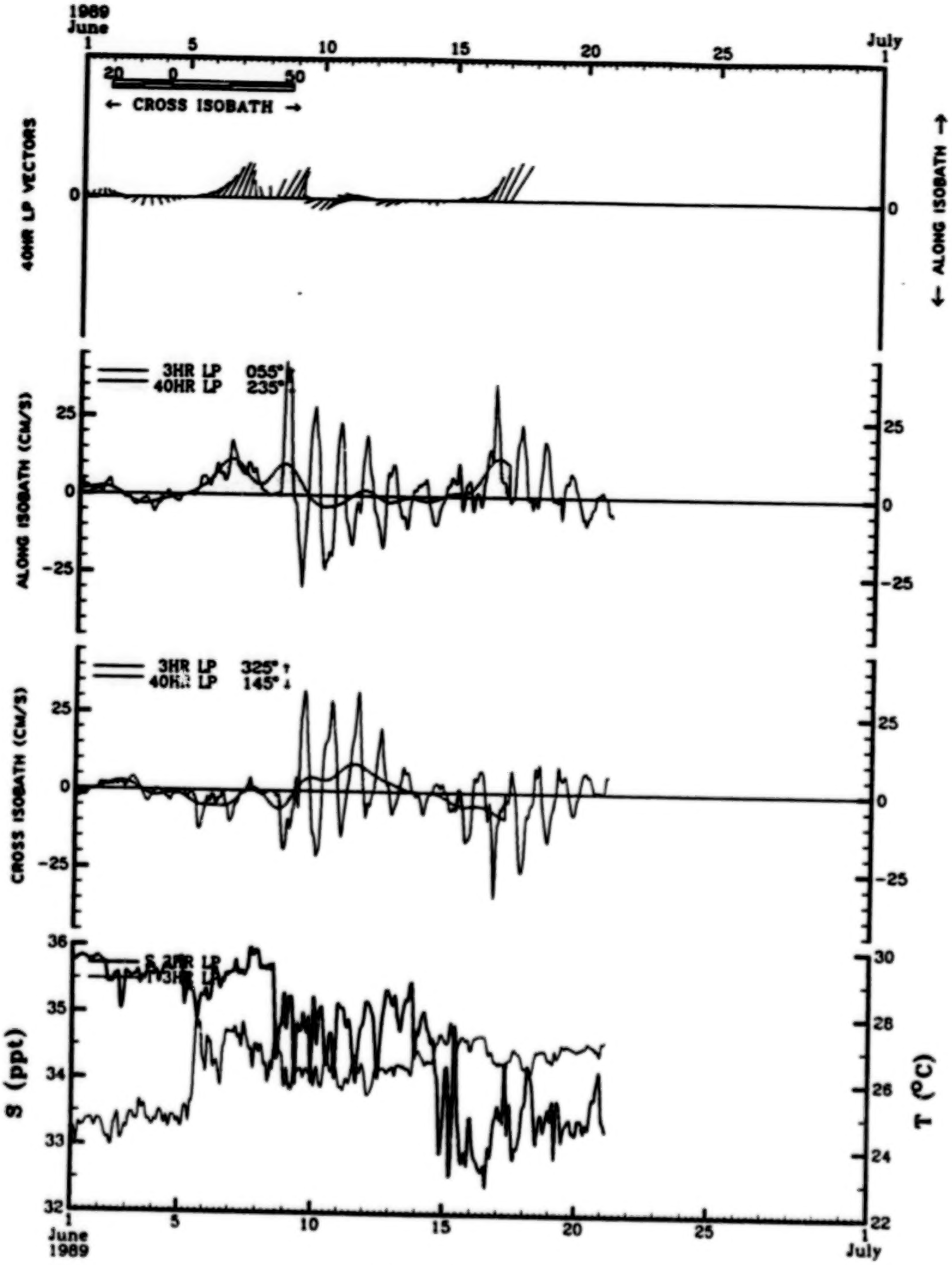
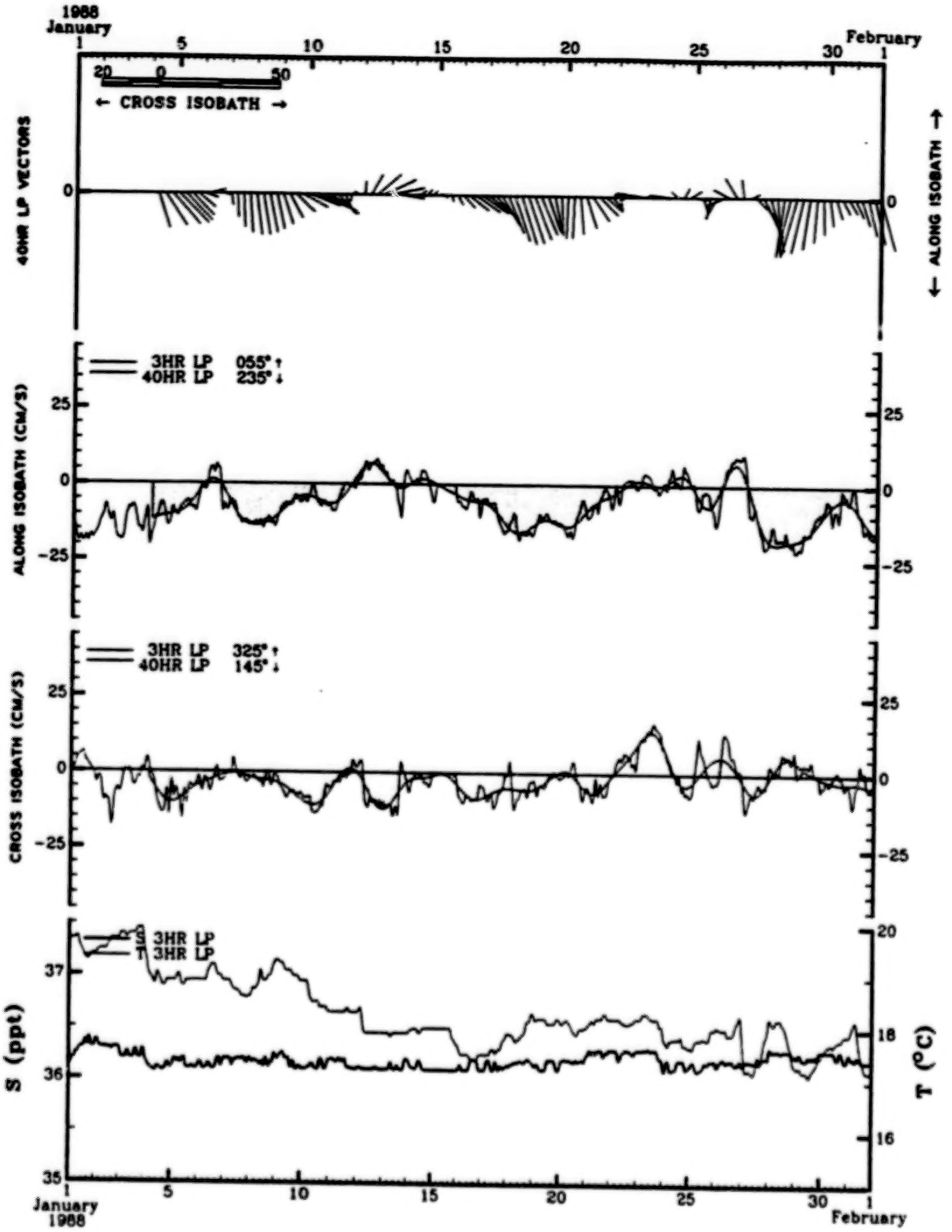


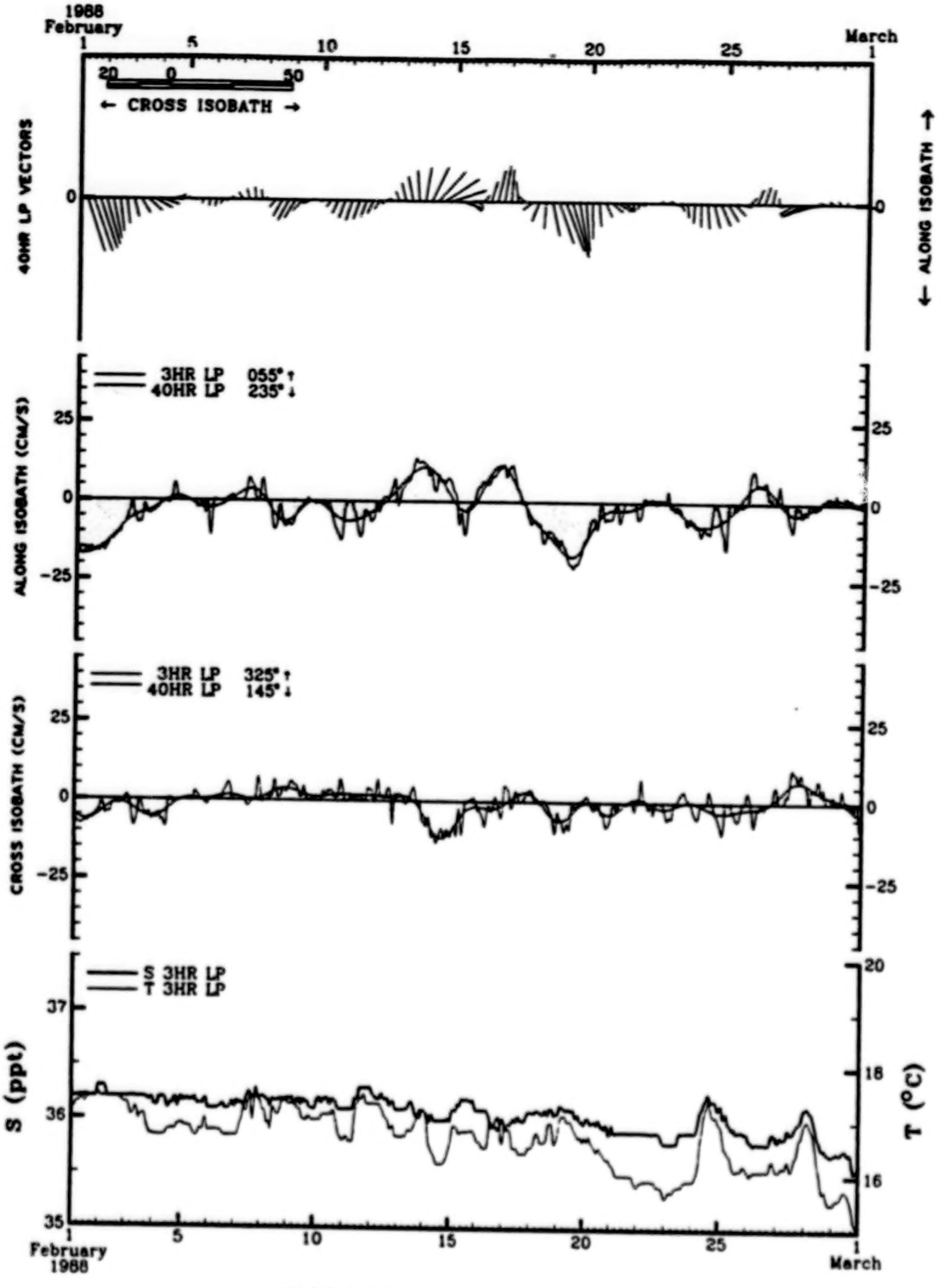
SITE BT 10M/60M (GMT)

312



SITE BB 57M/60M (GMT)

3-3



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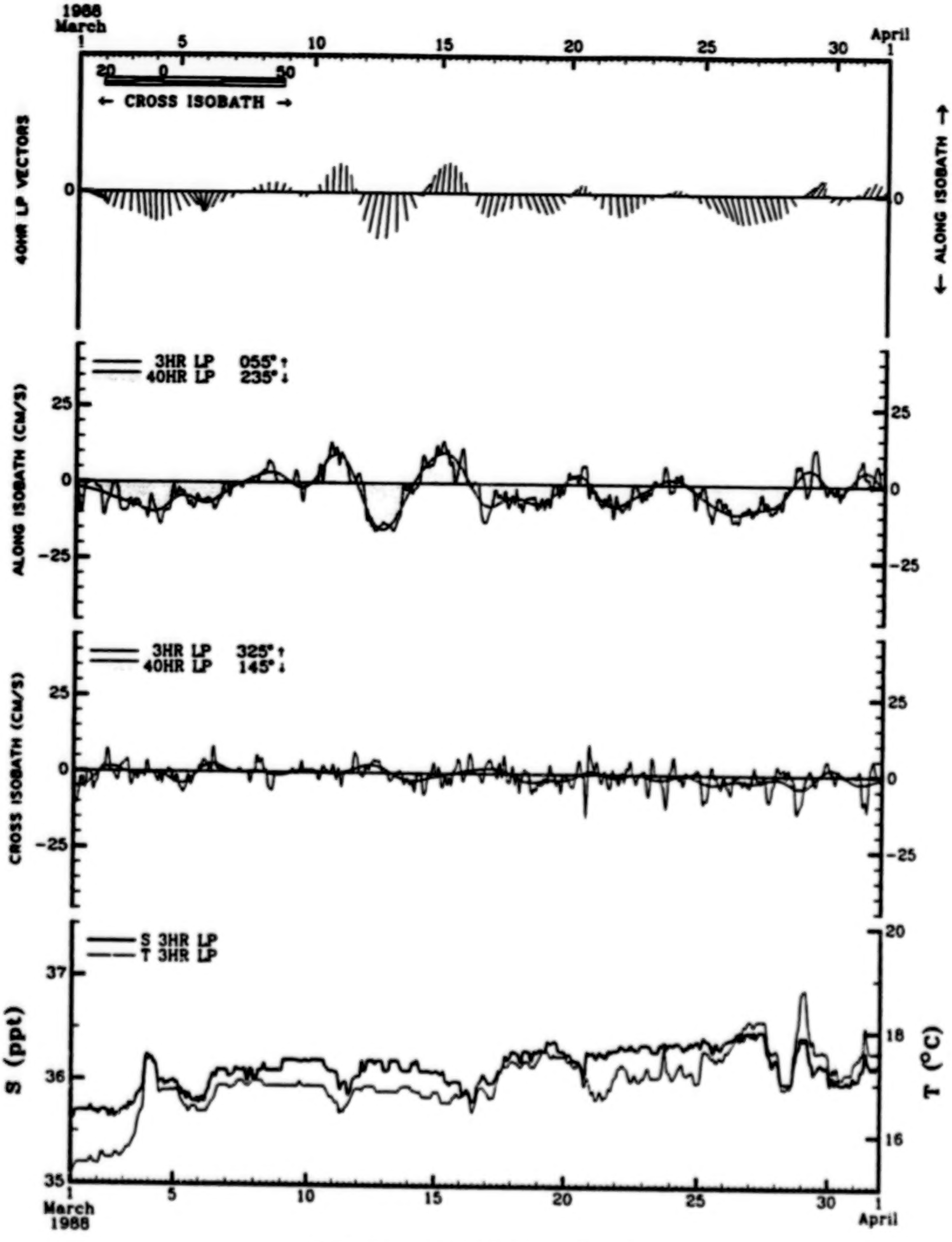

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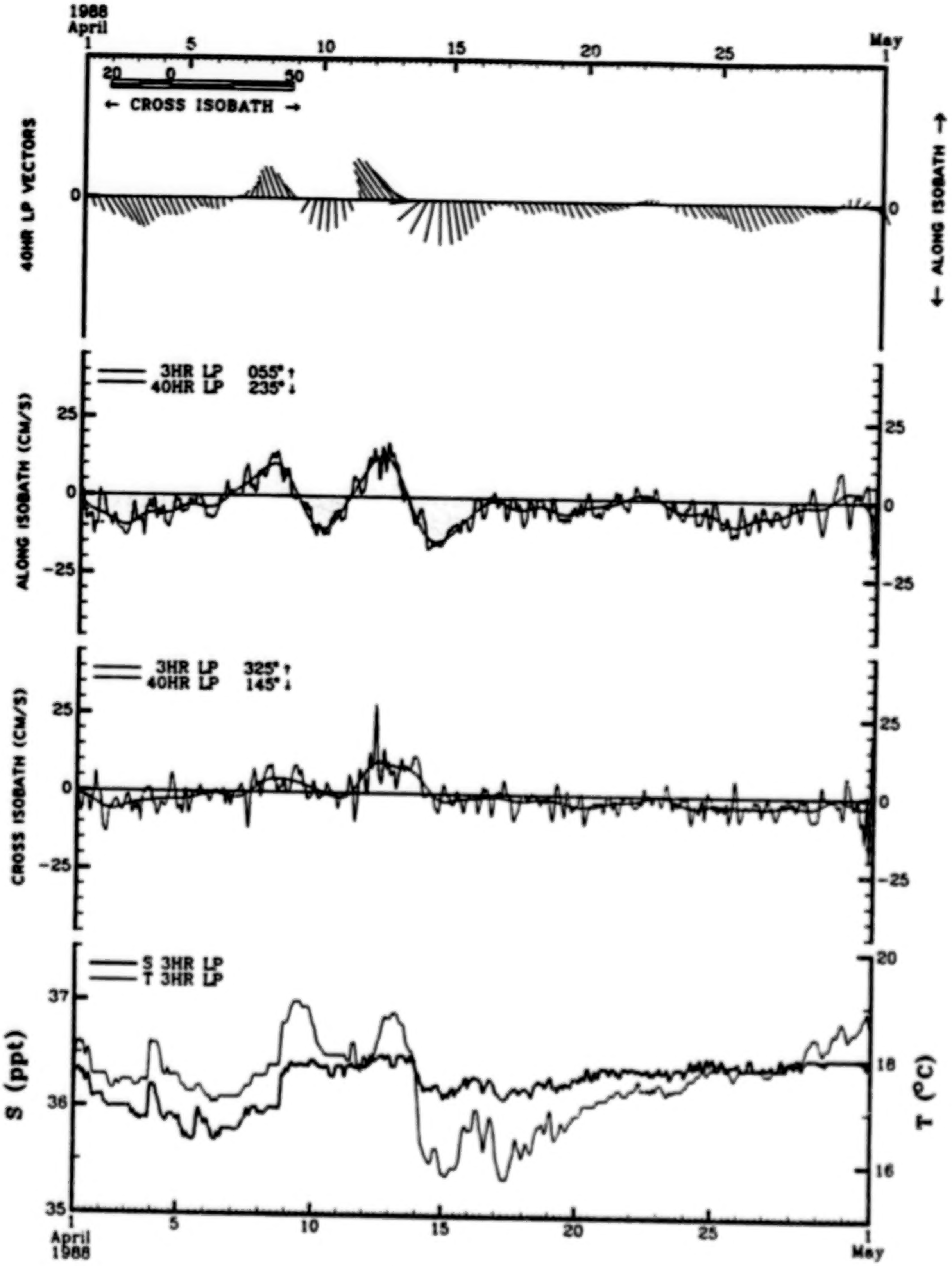

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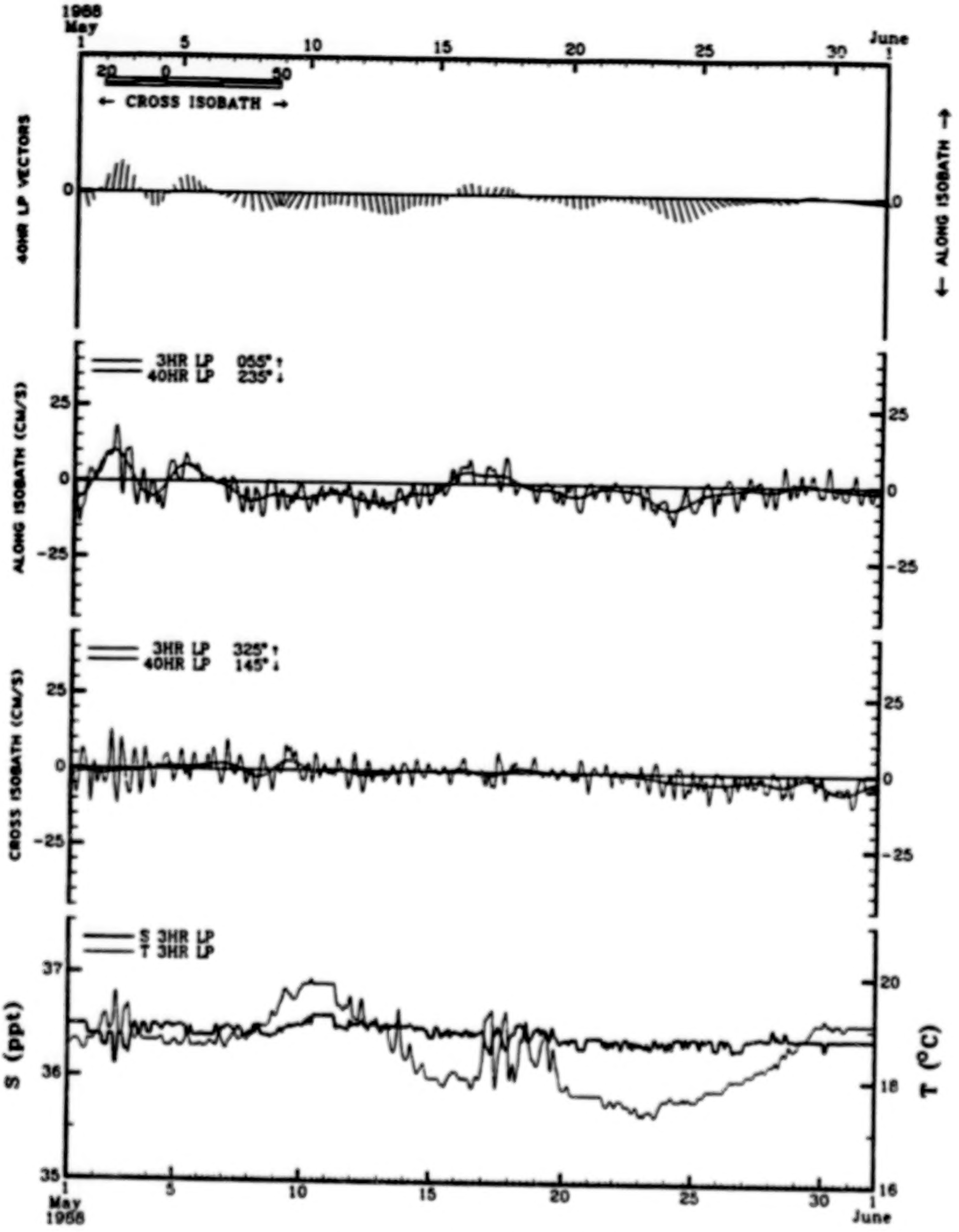

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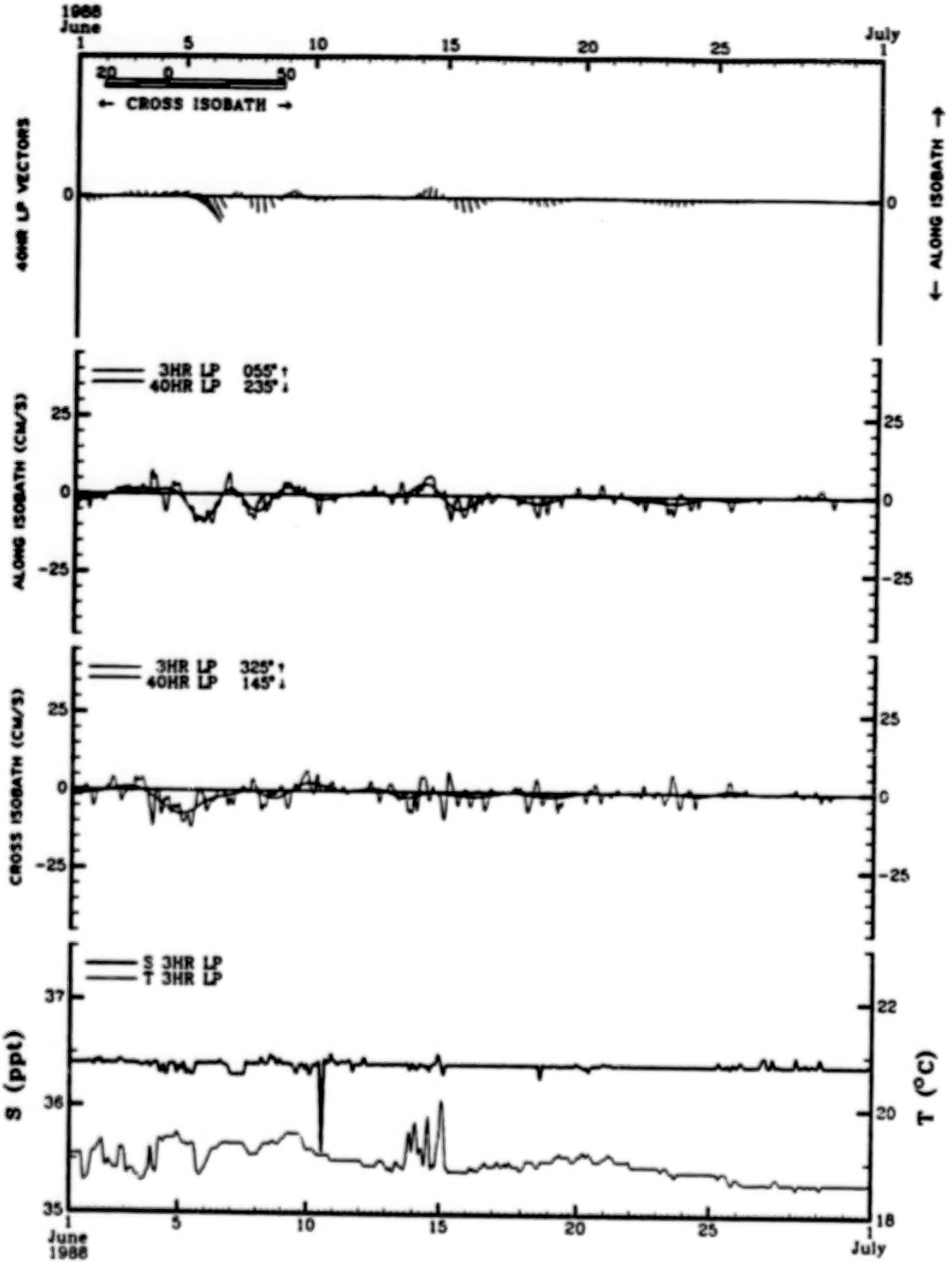
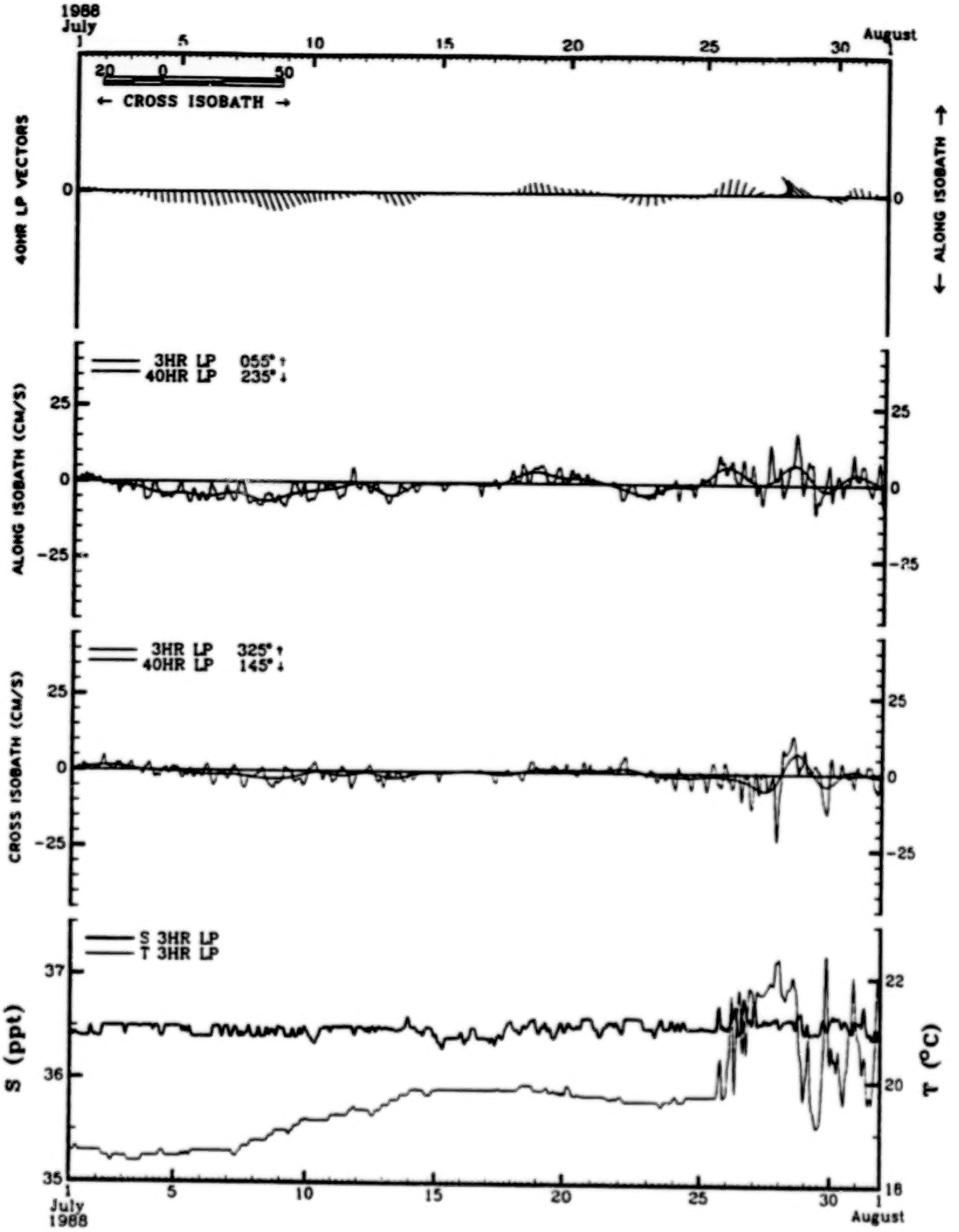
5_7



SITE BB 57M/60M (GMT)

C_8



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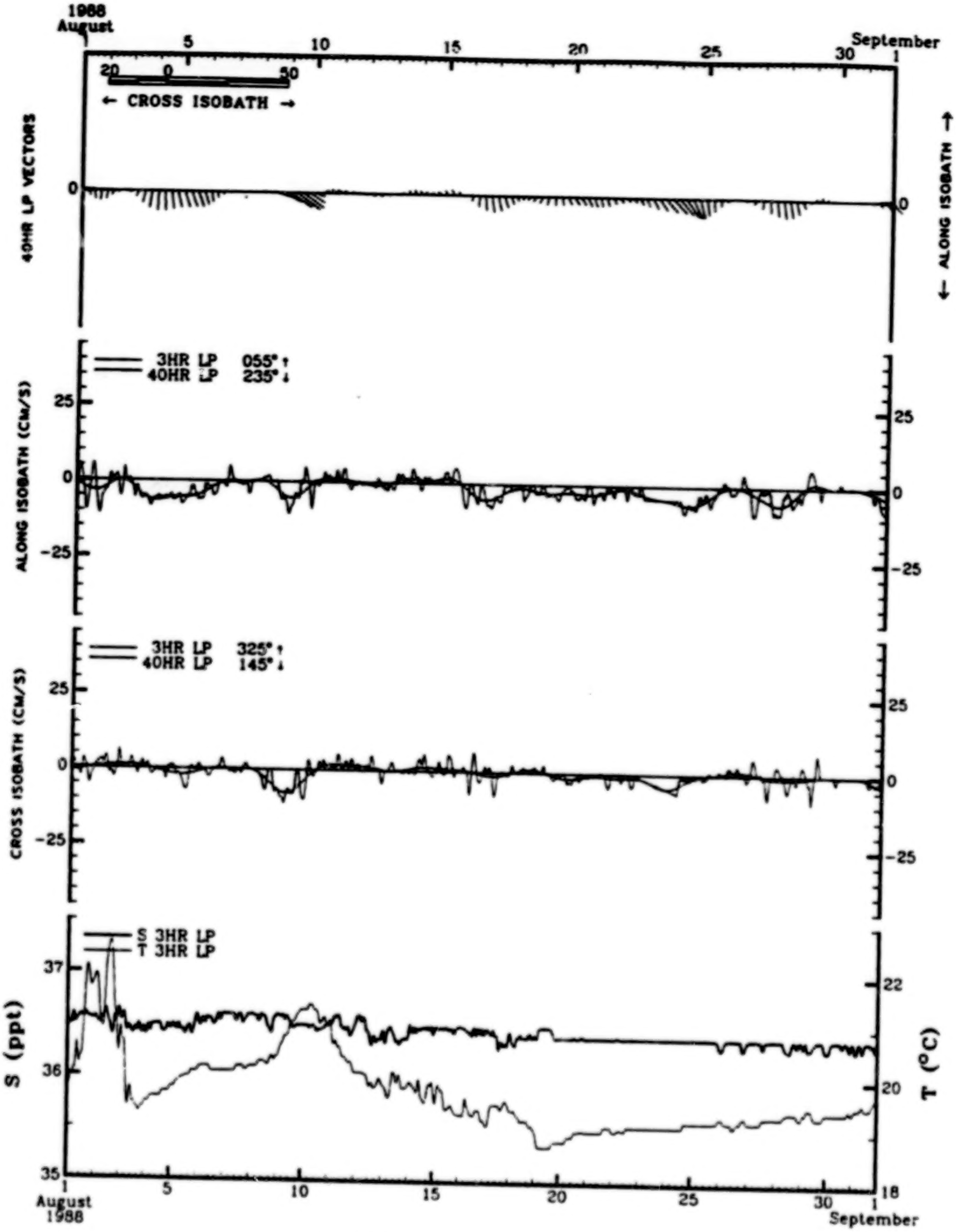

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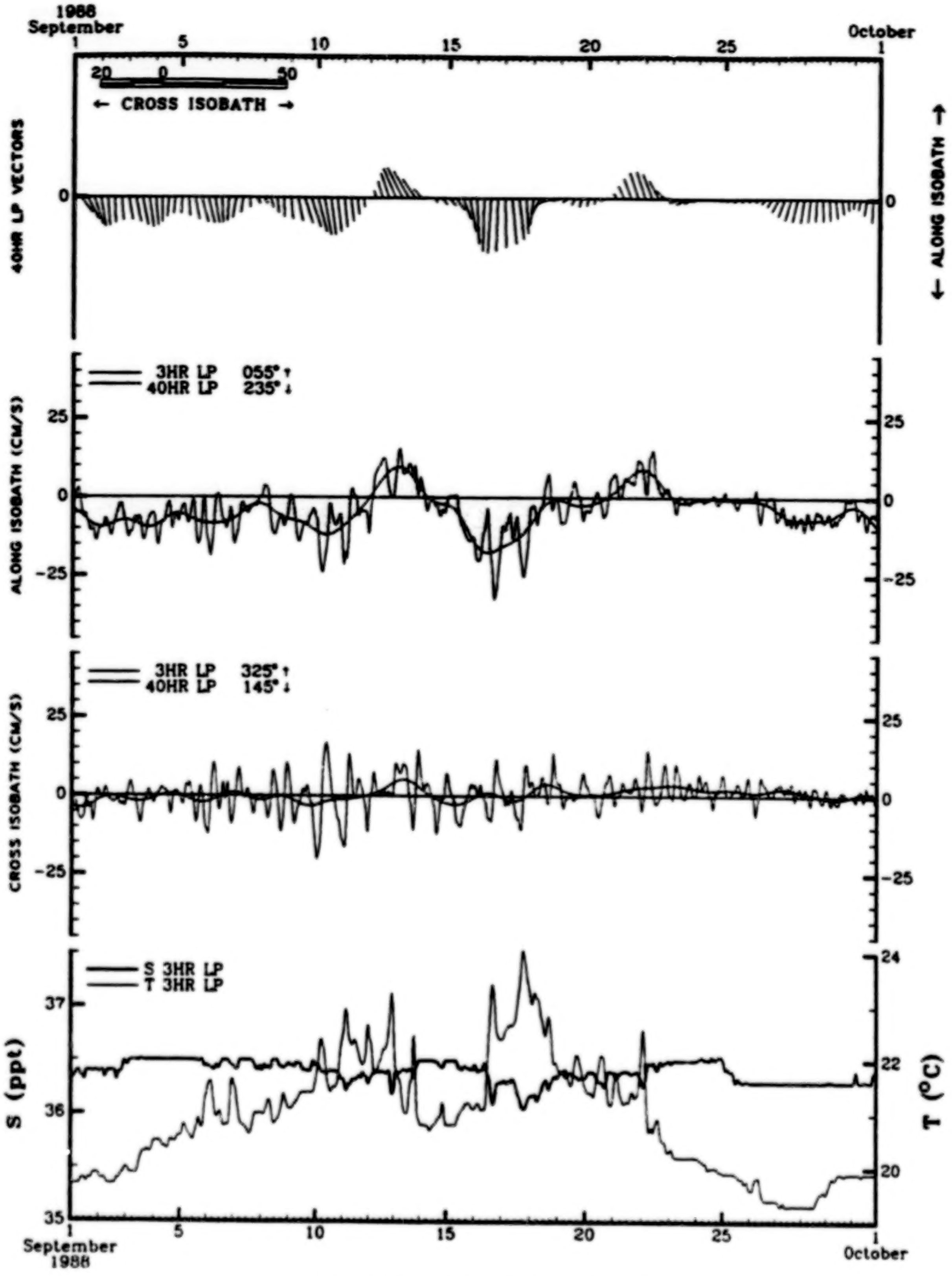

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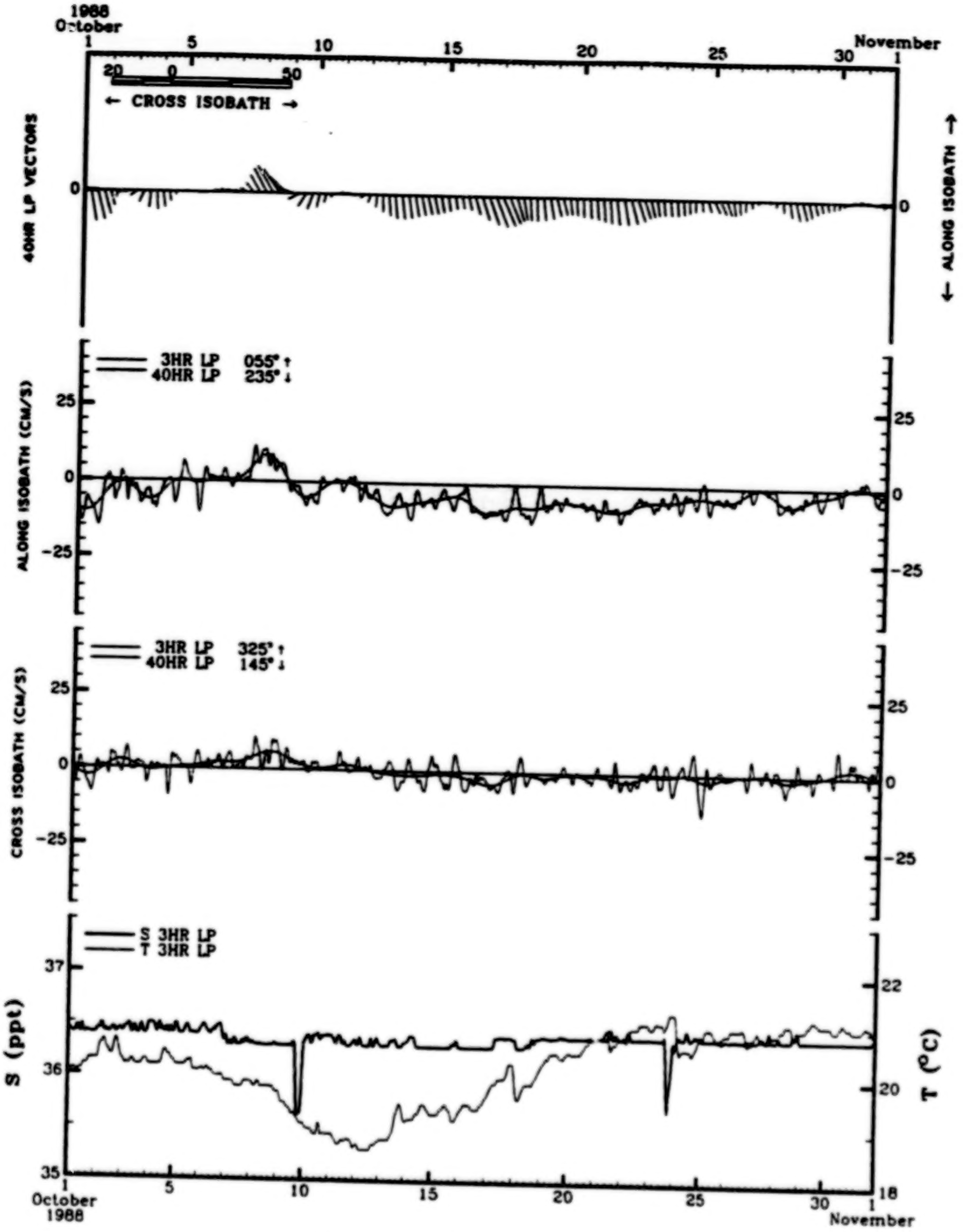

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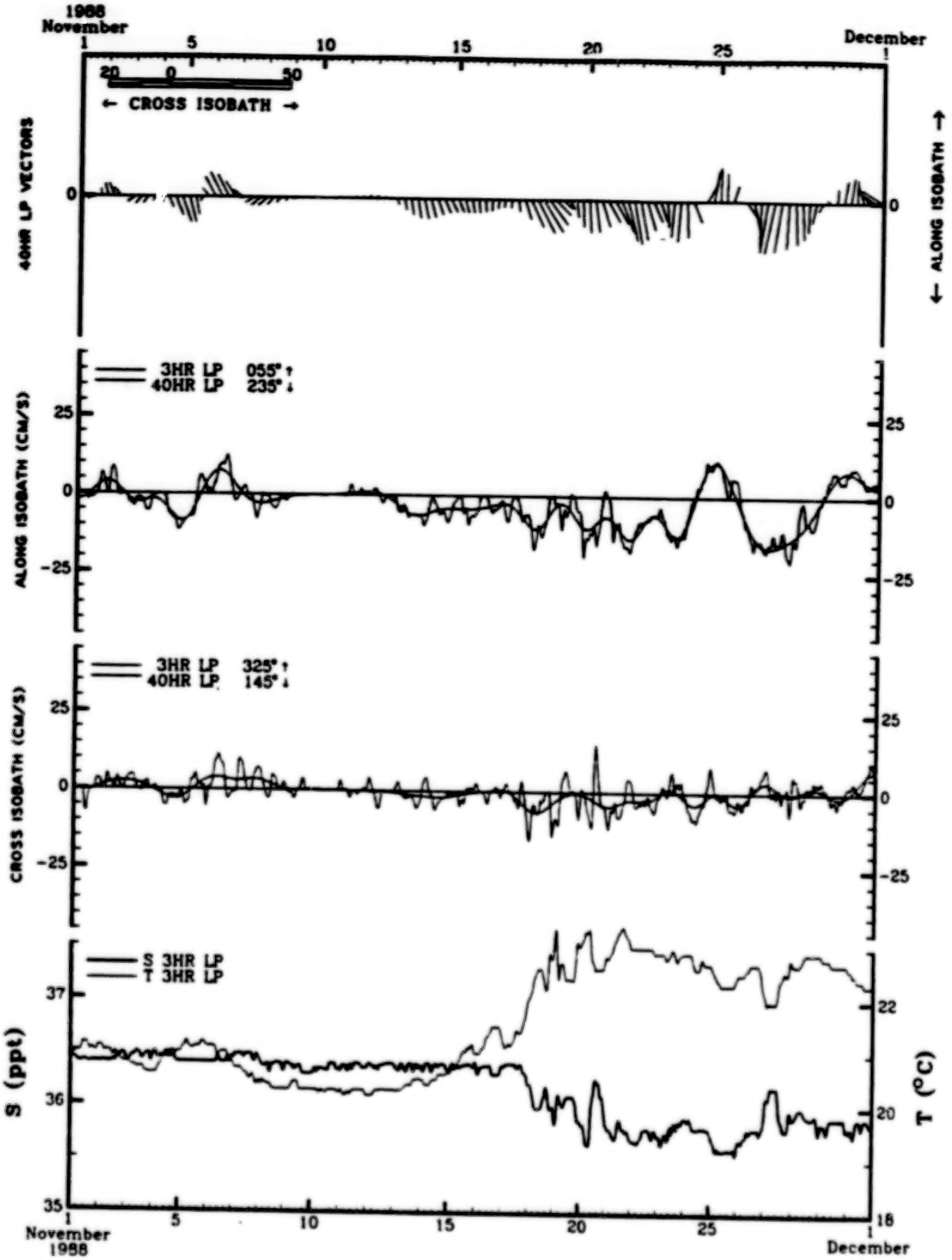

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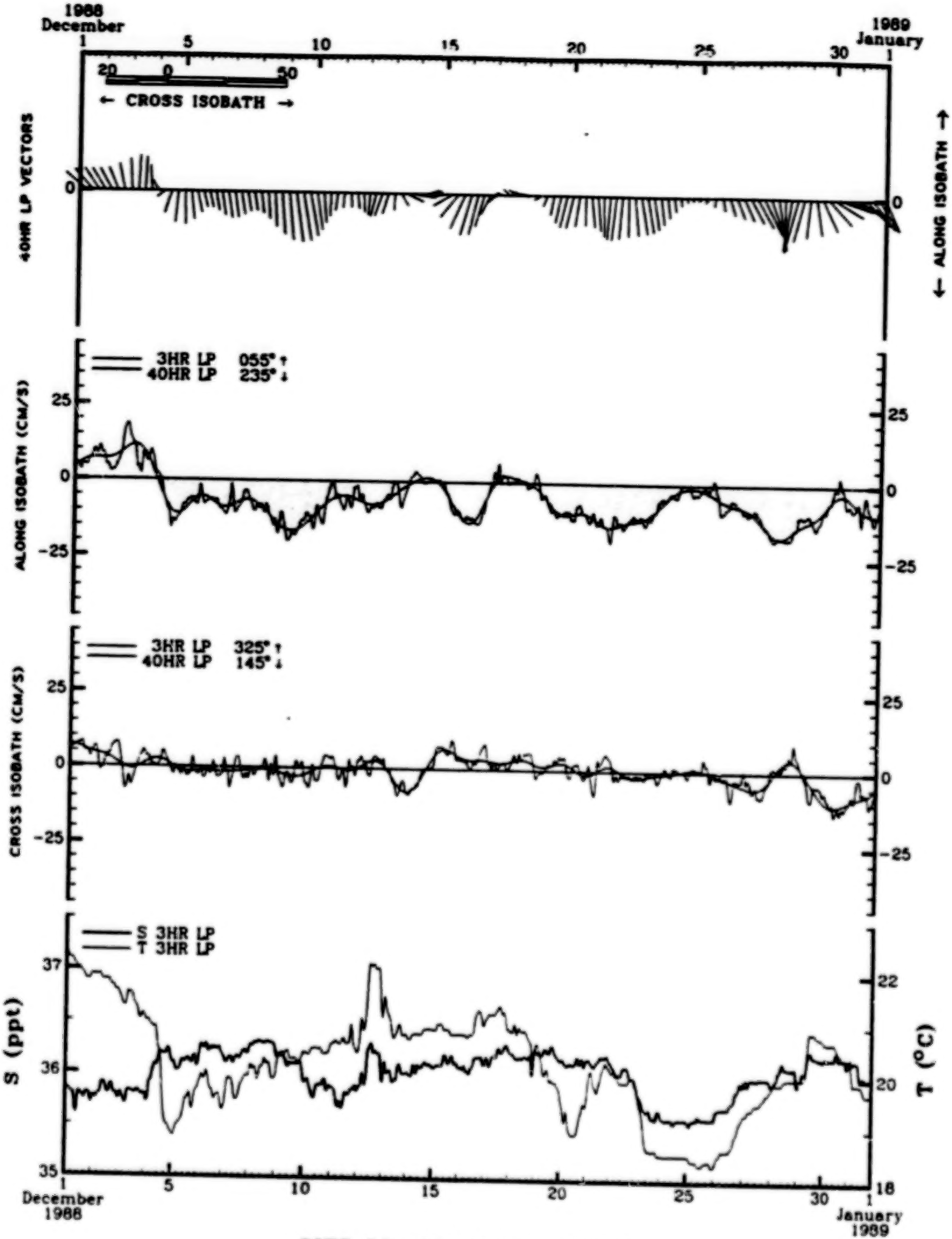

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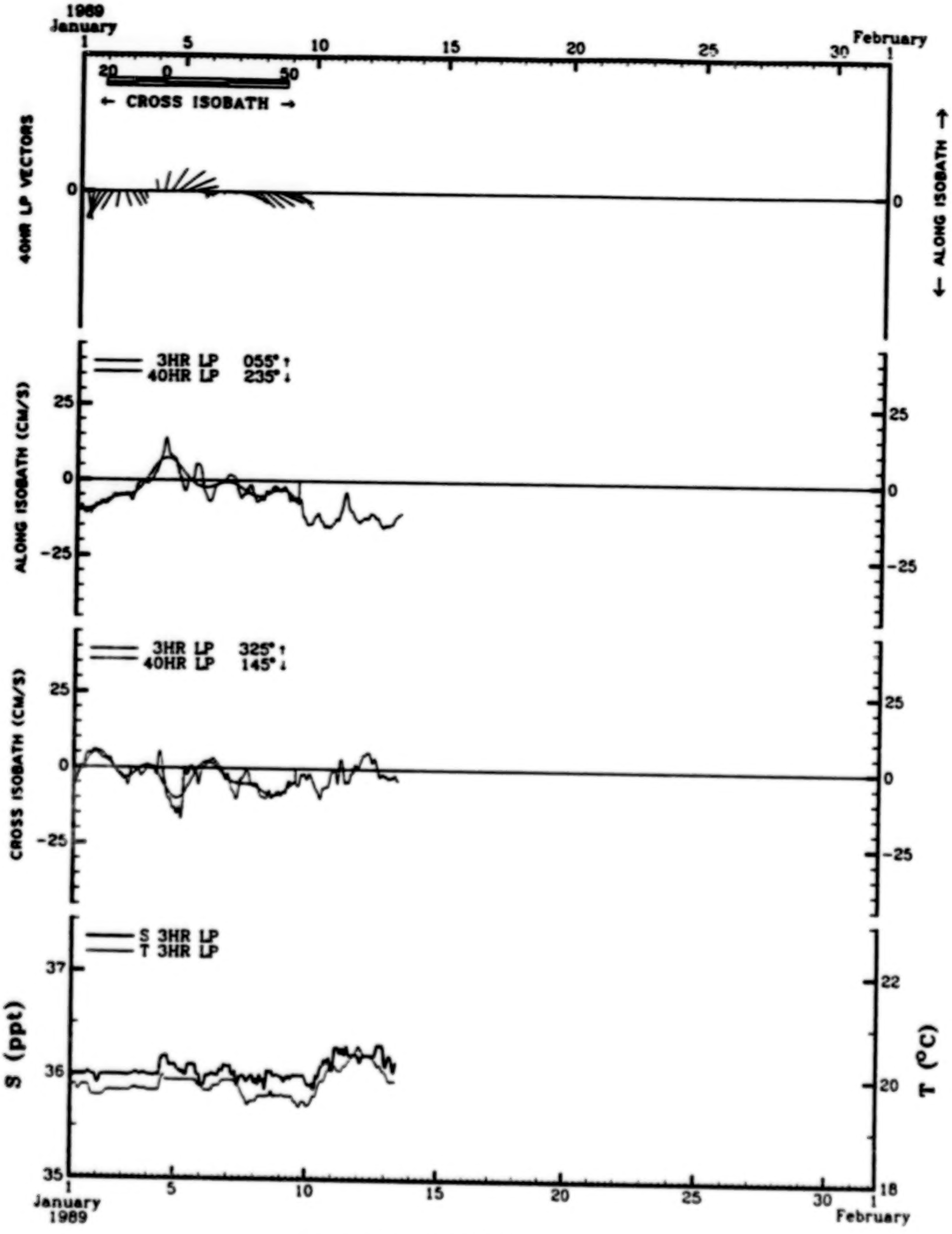

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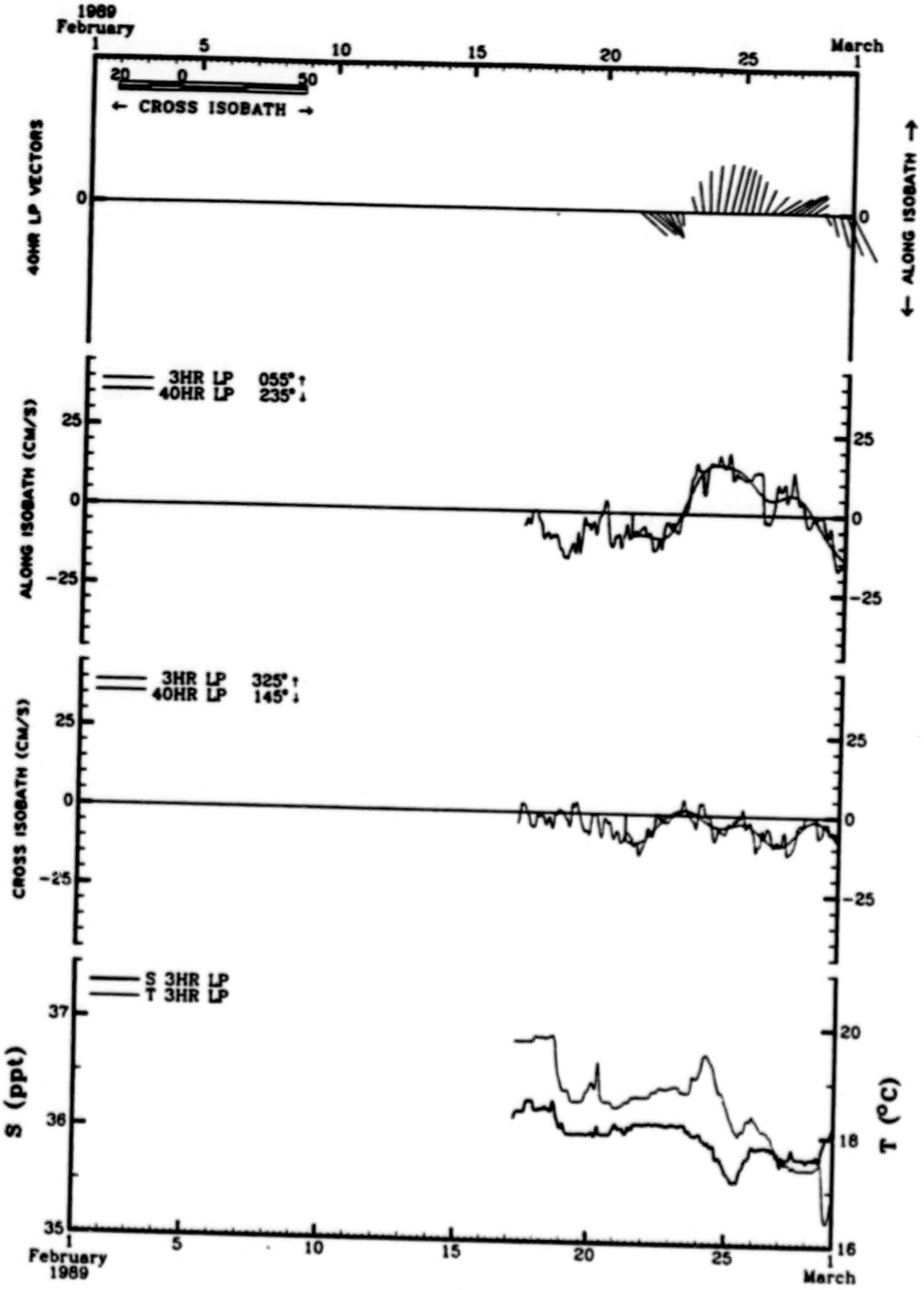

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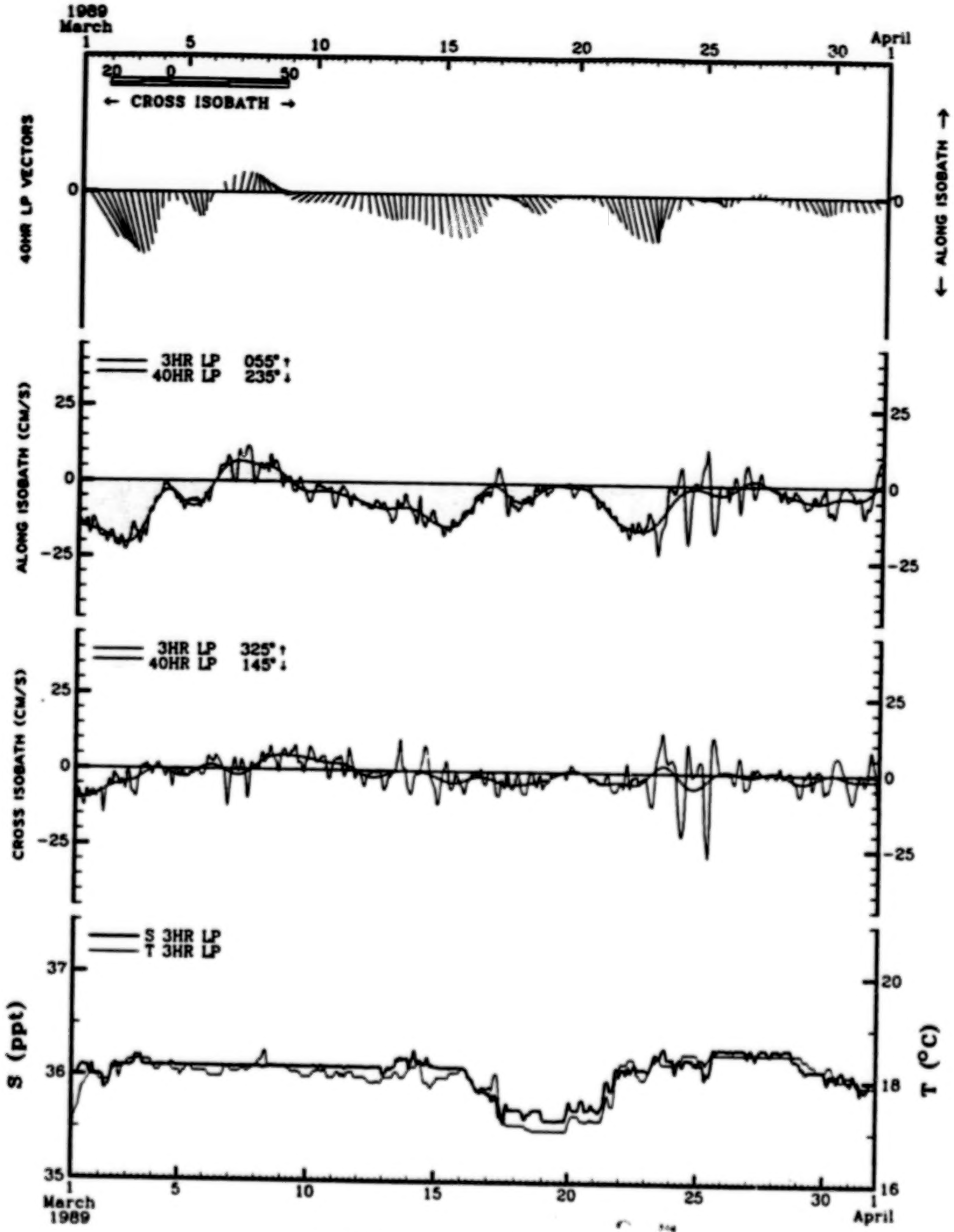

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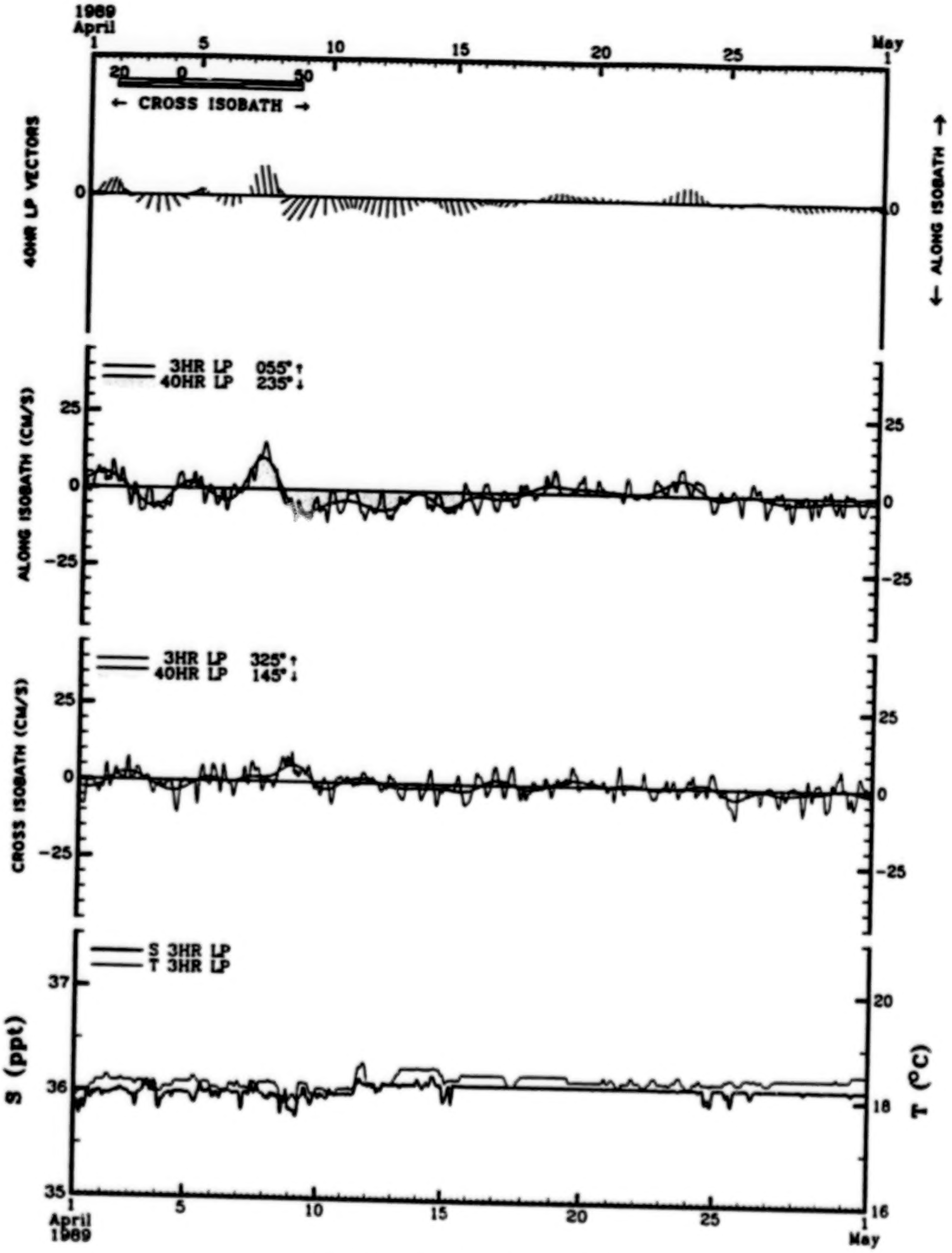

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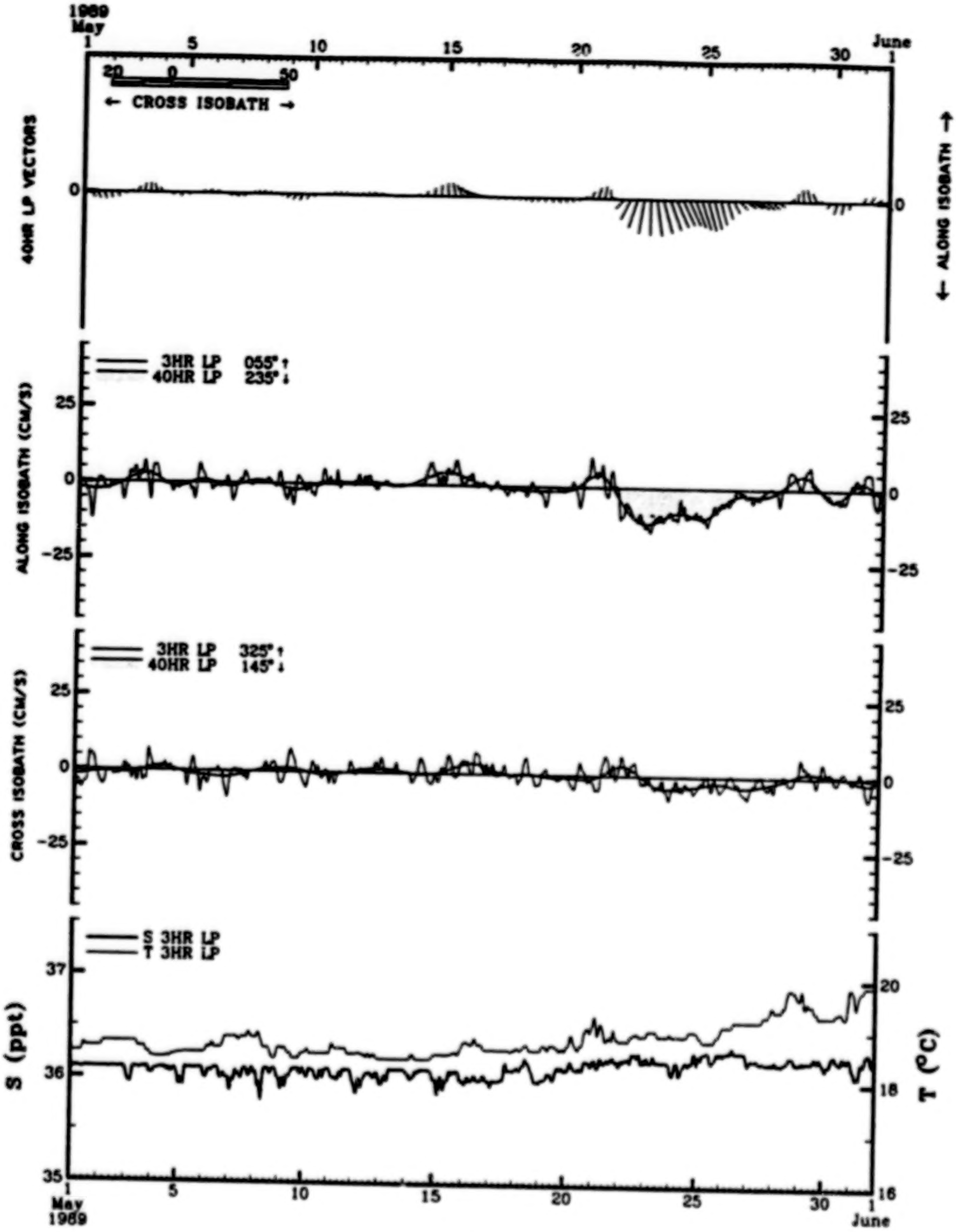

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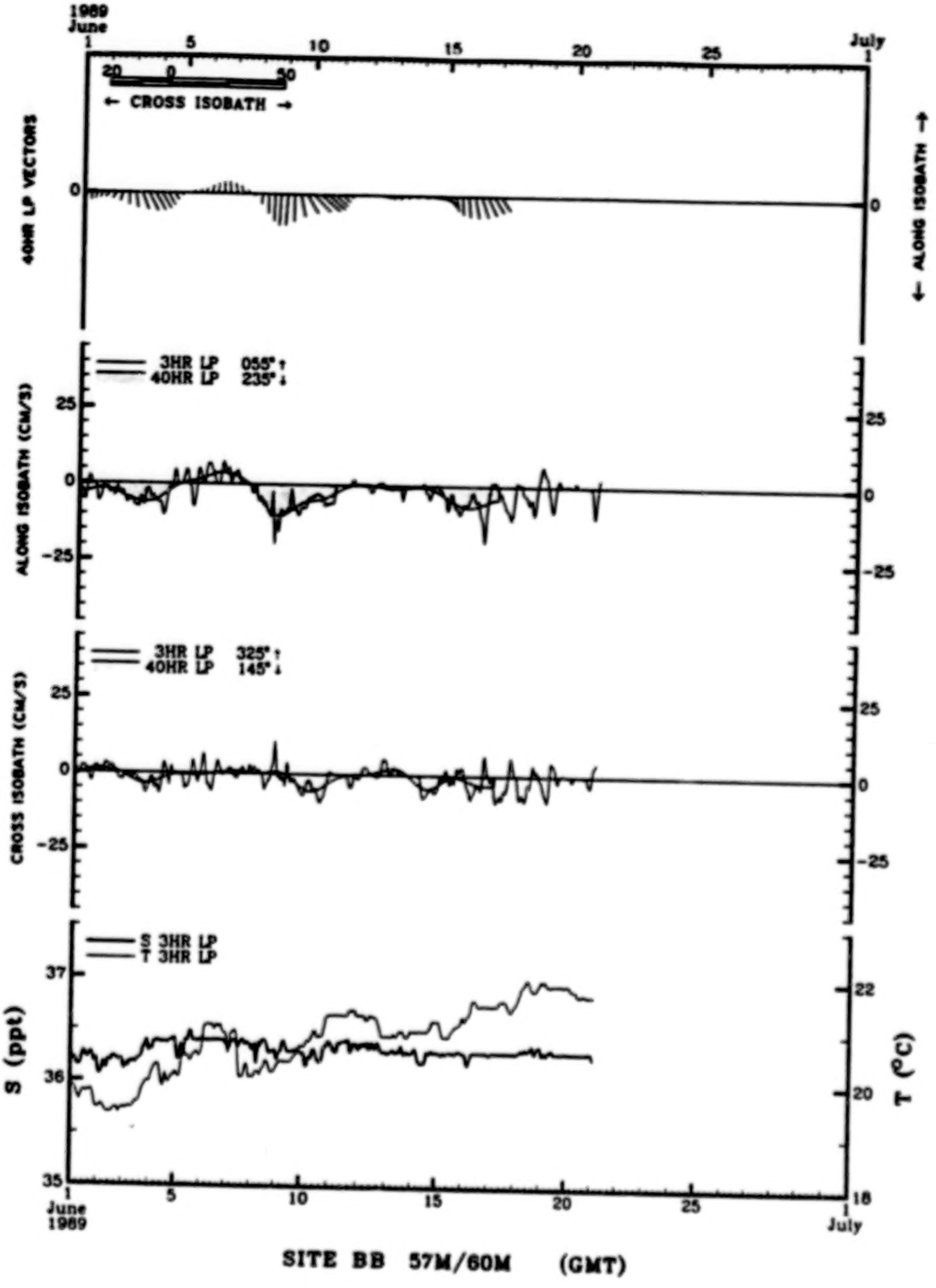

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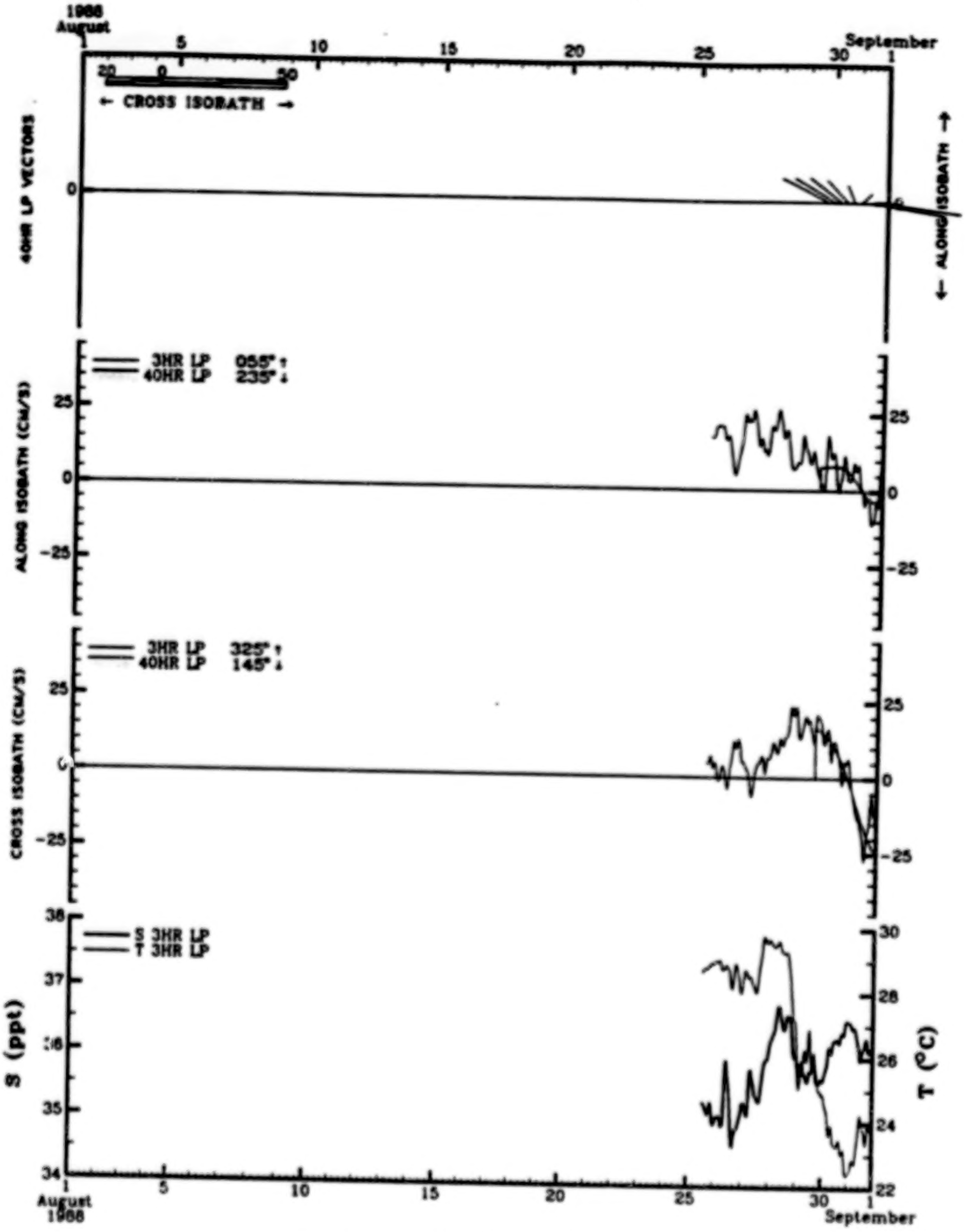

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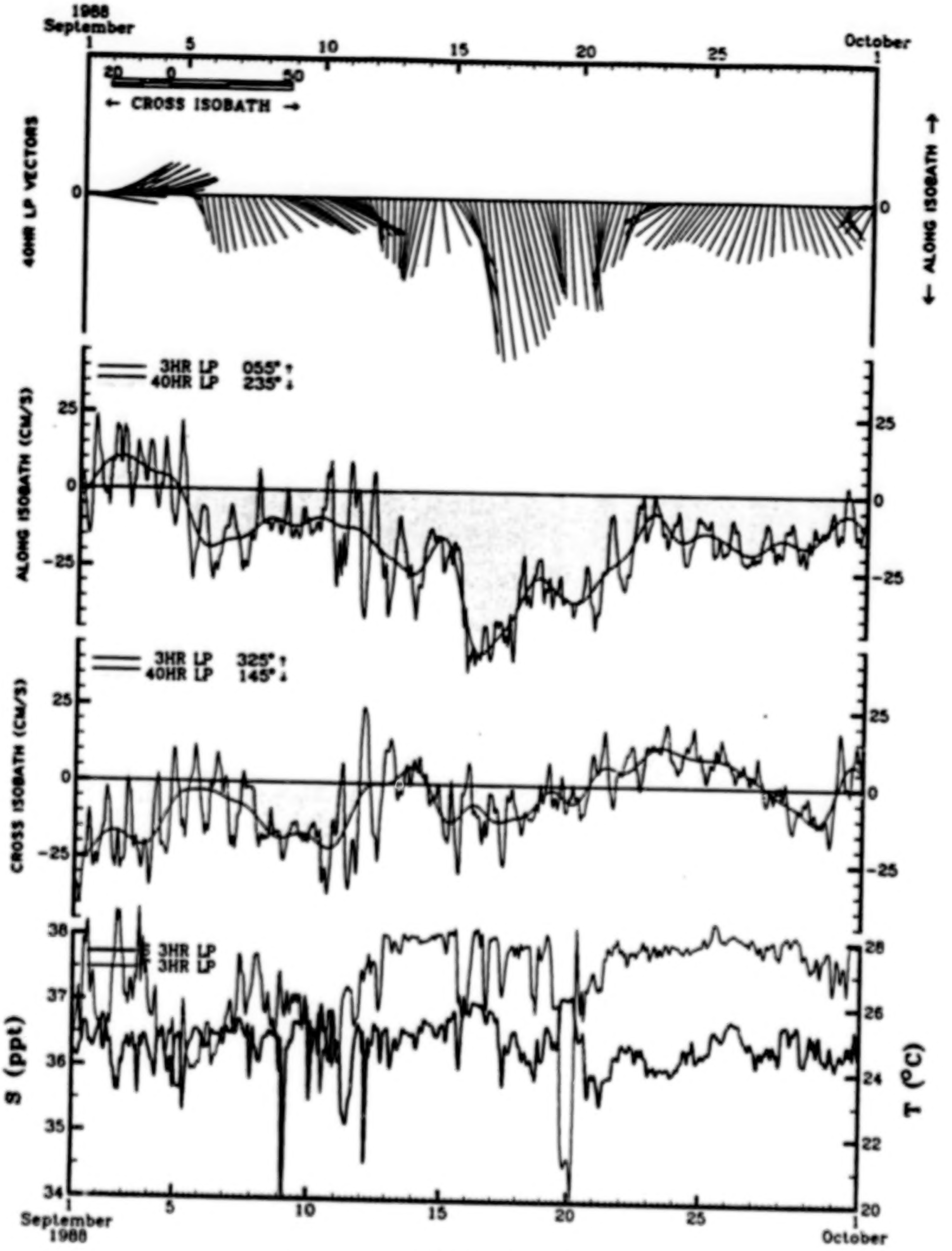

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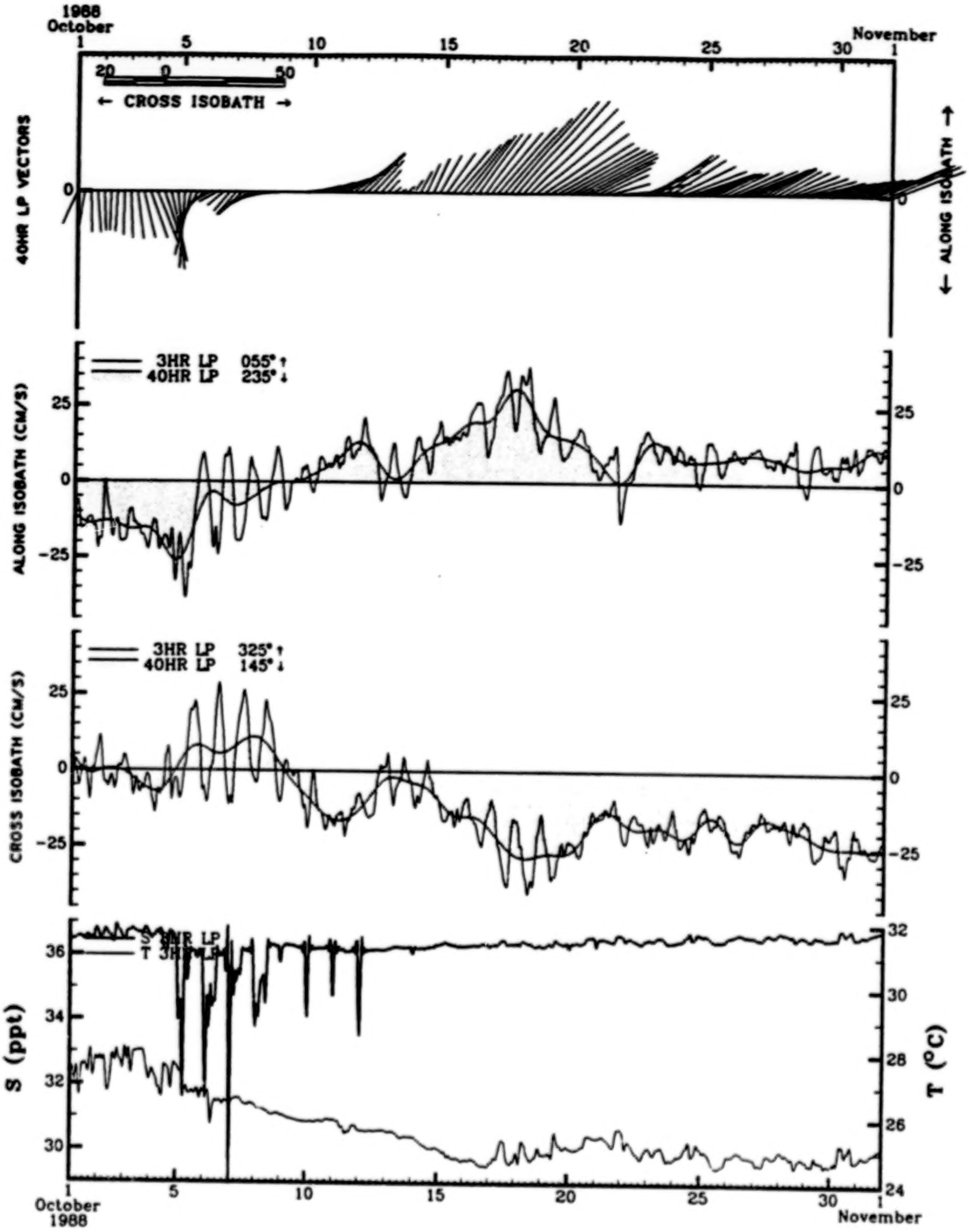

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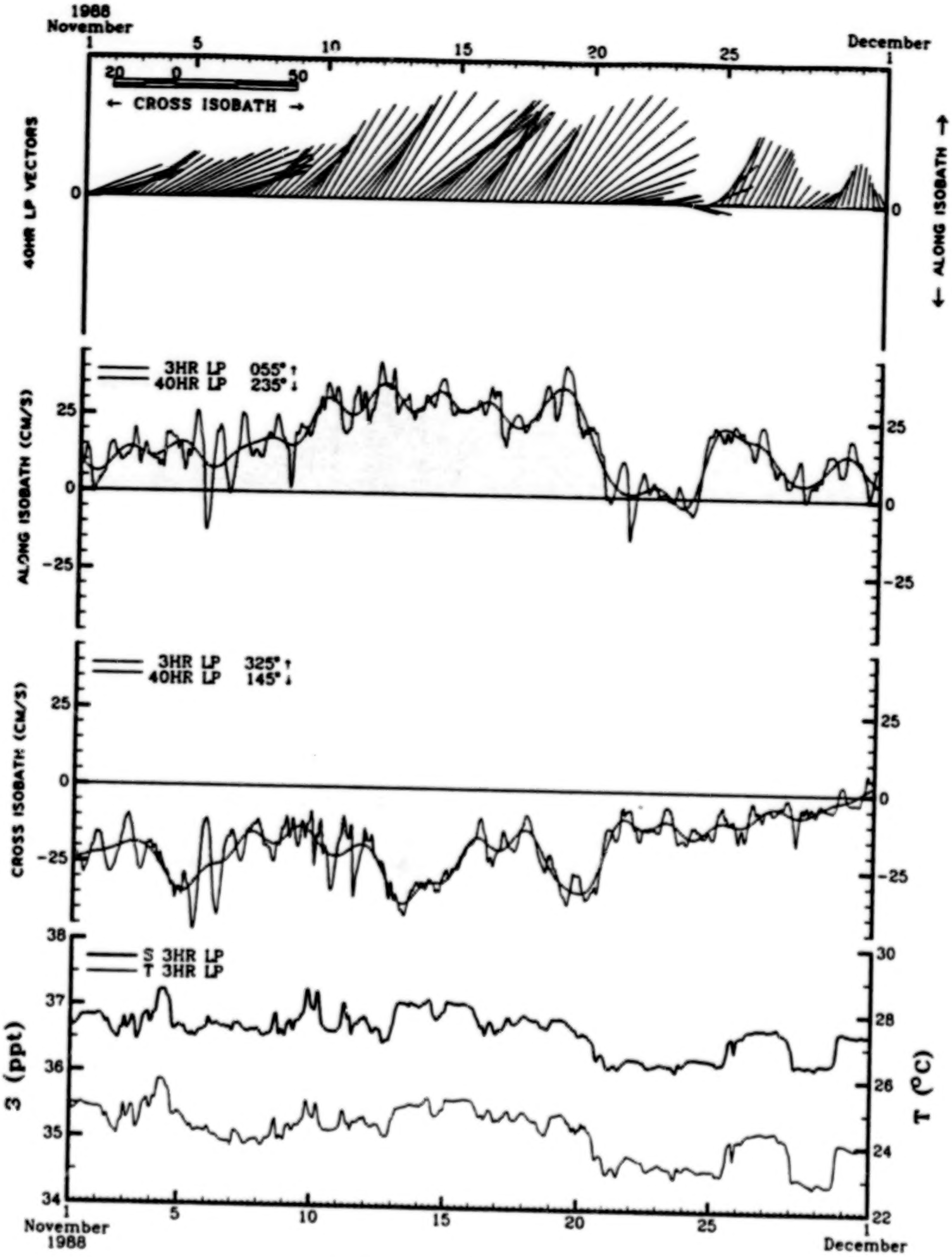

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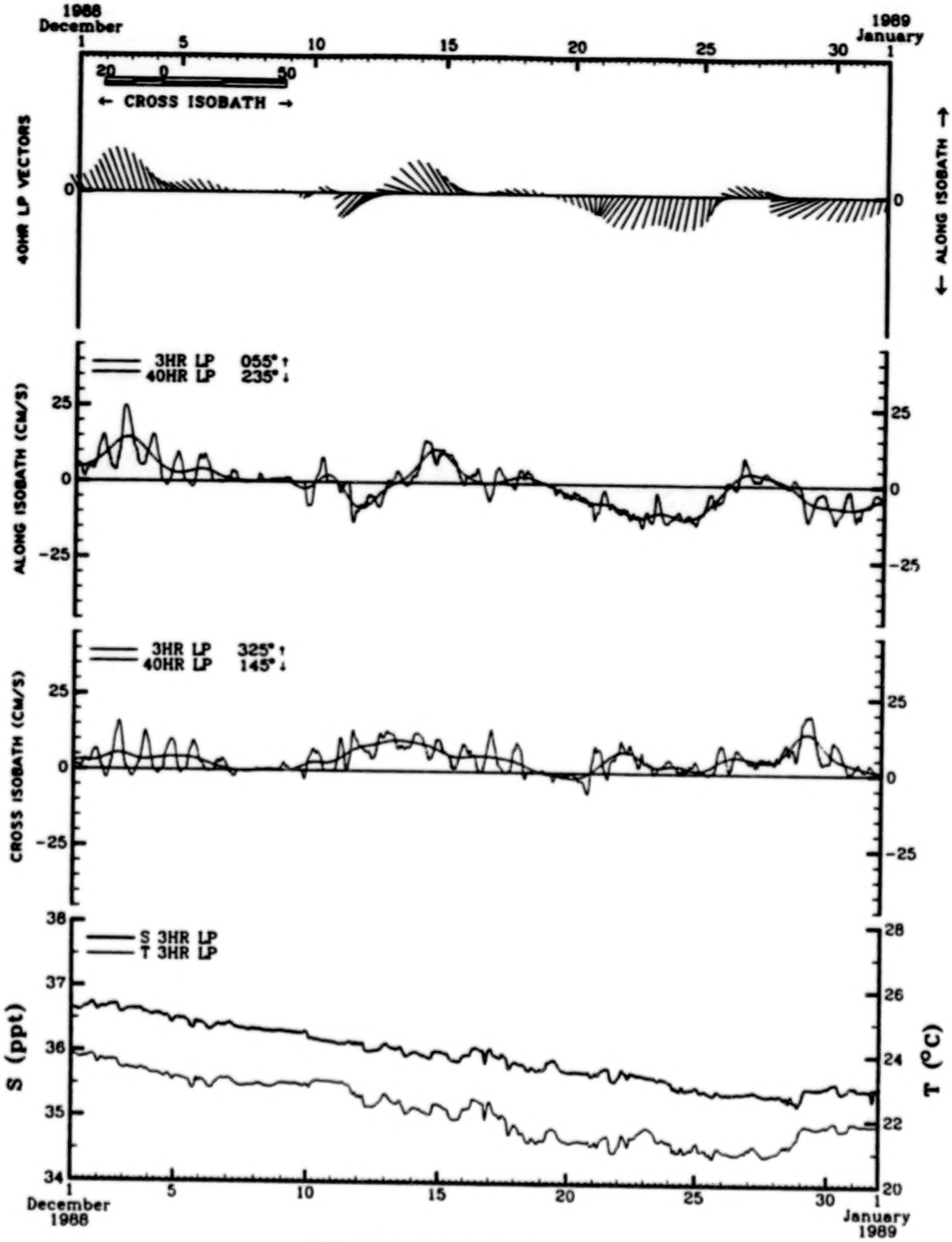

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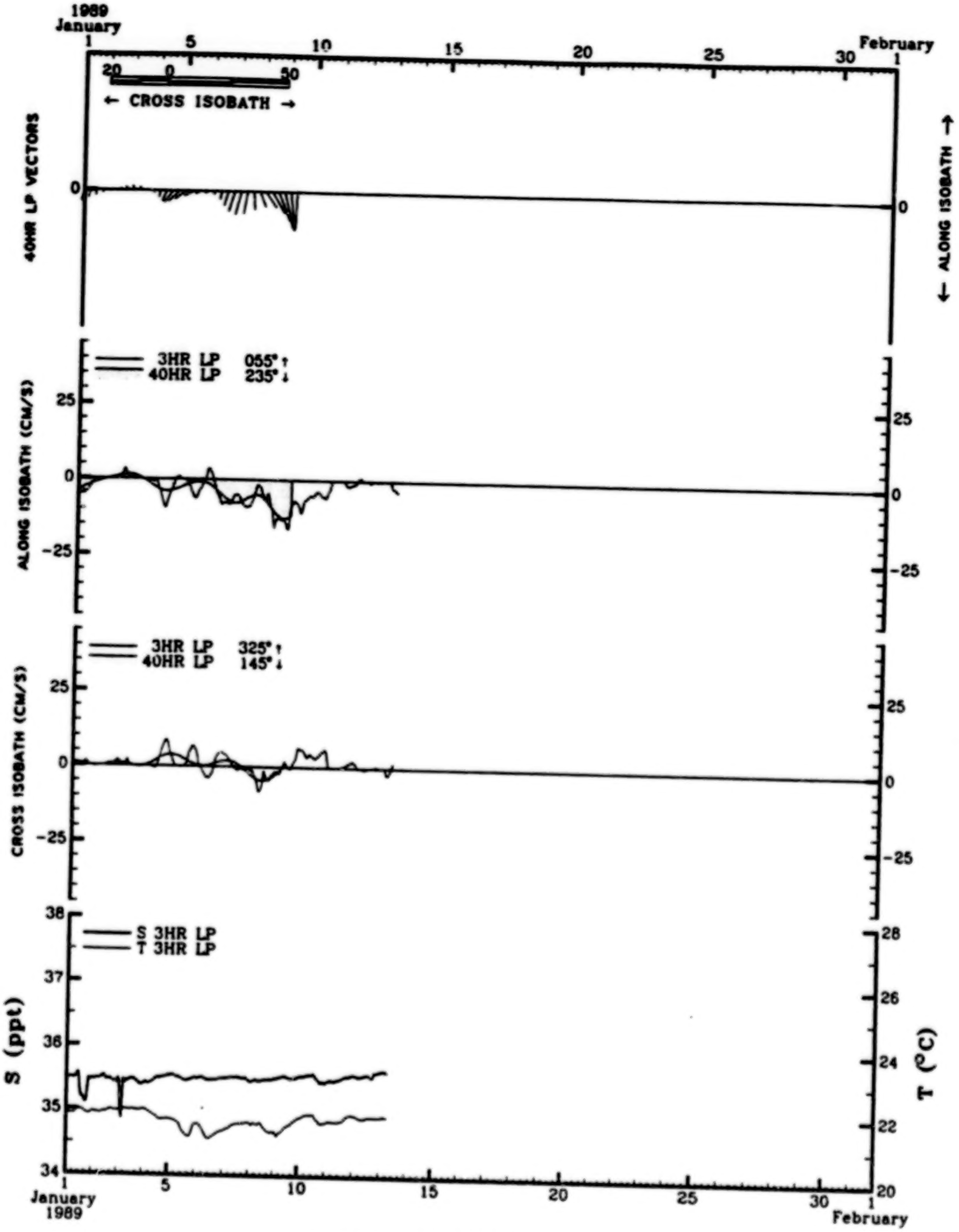

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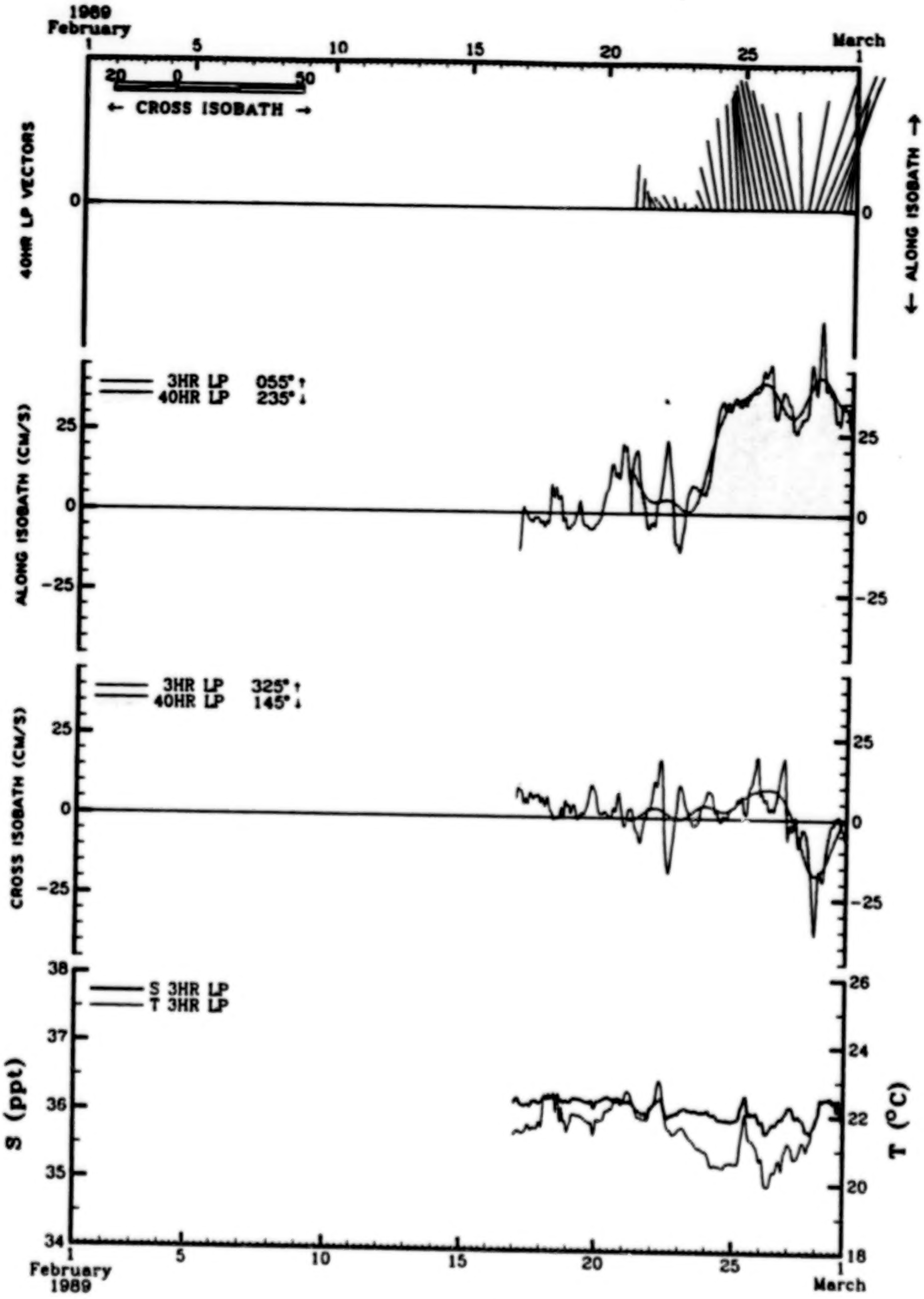

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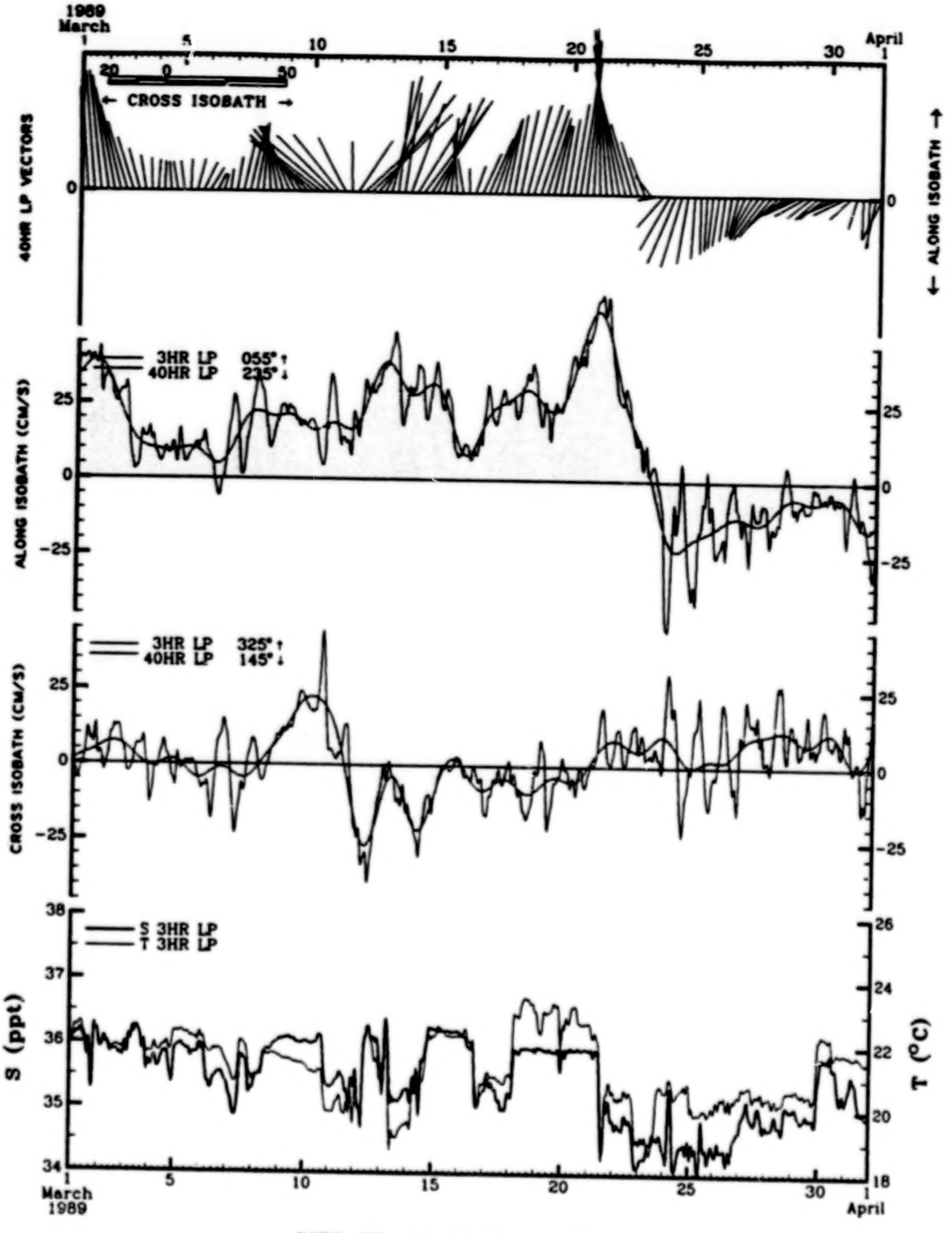

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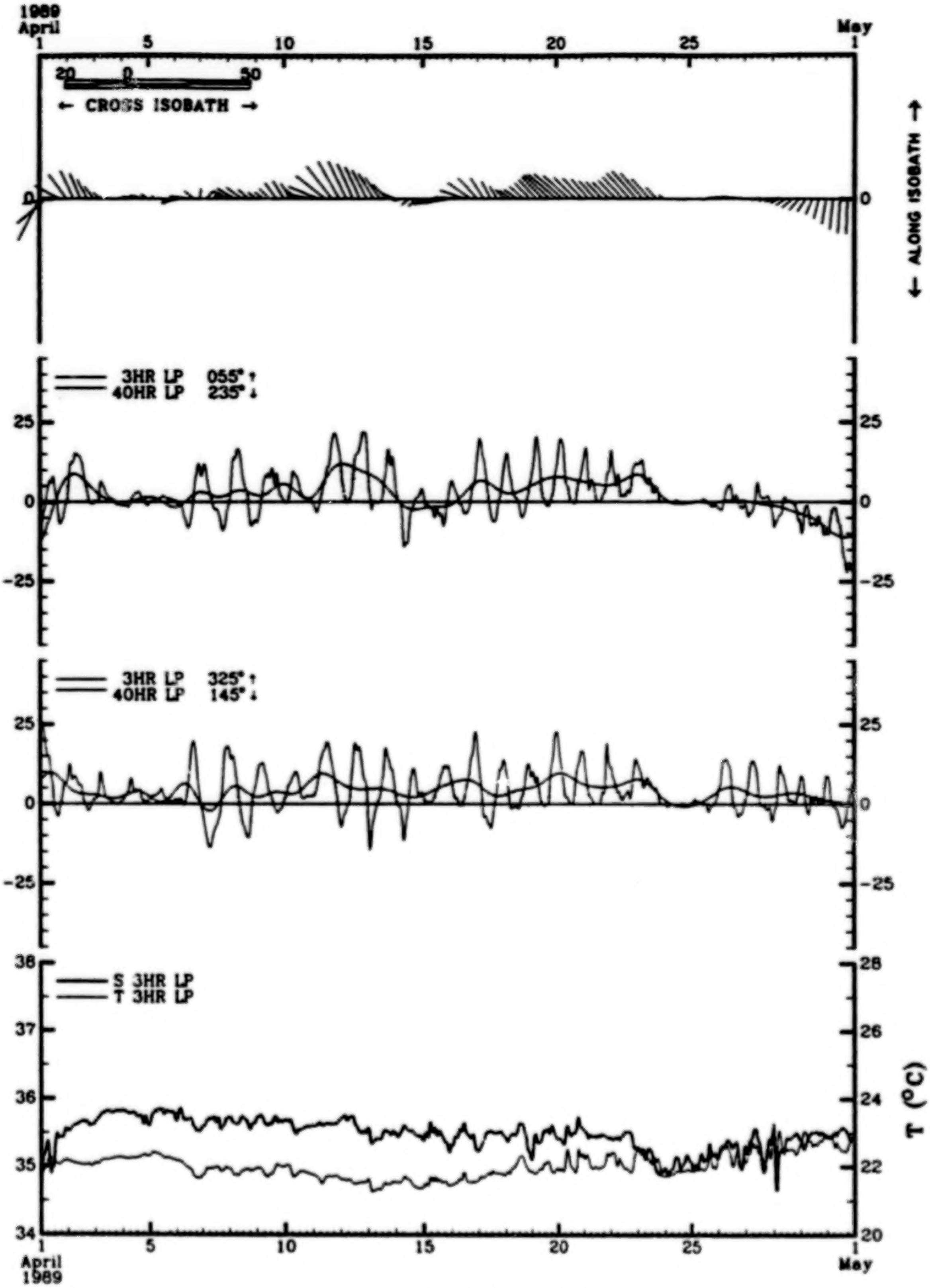

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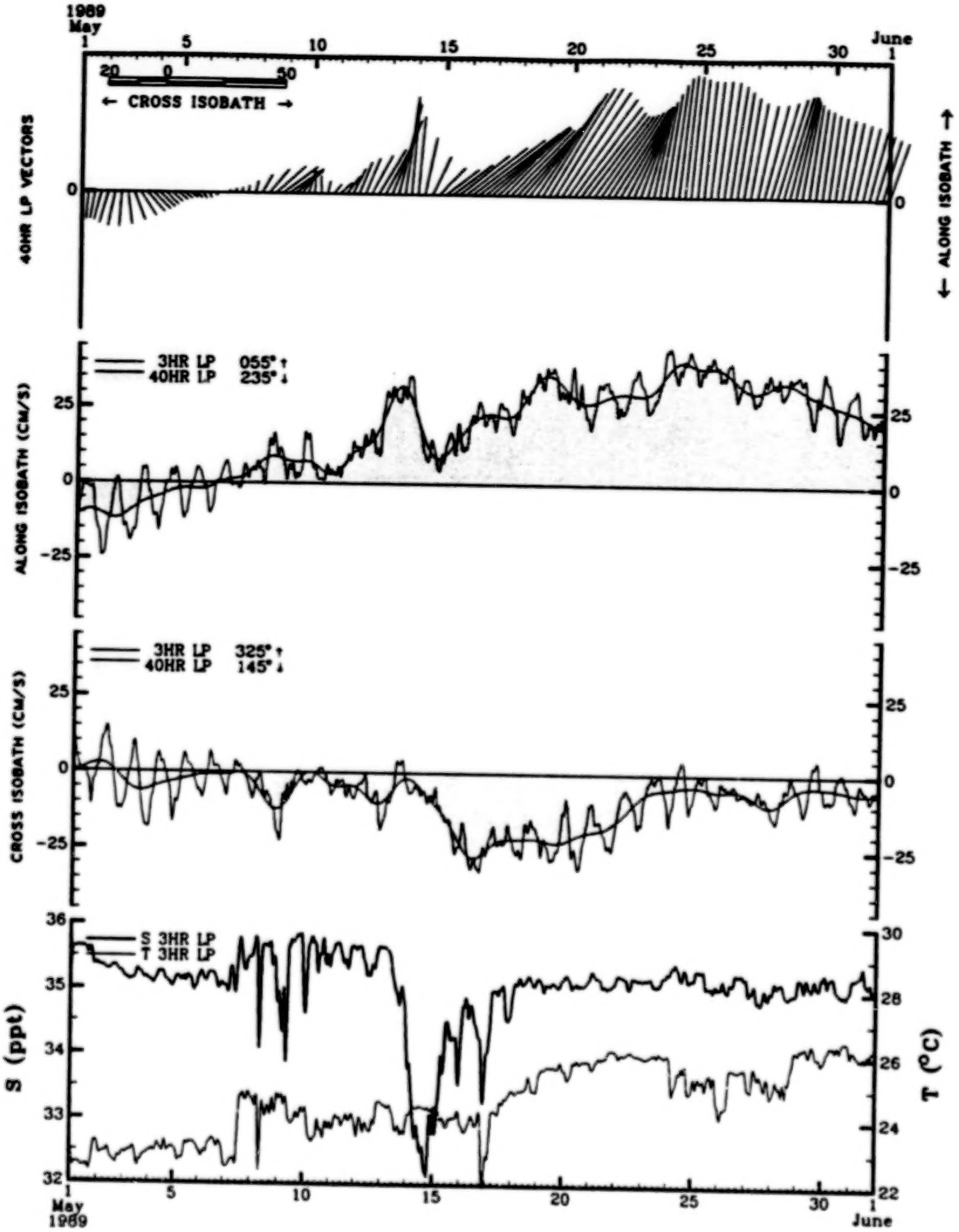

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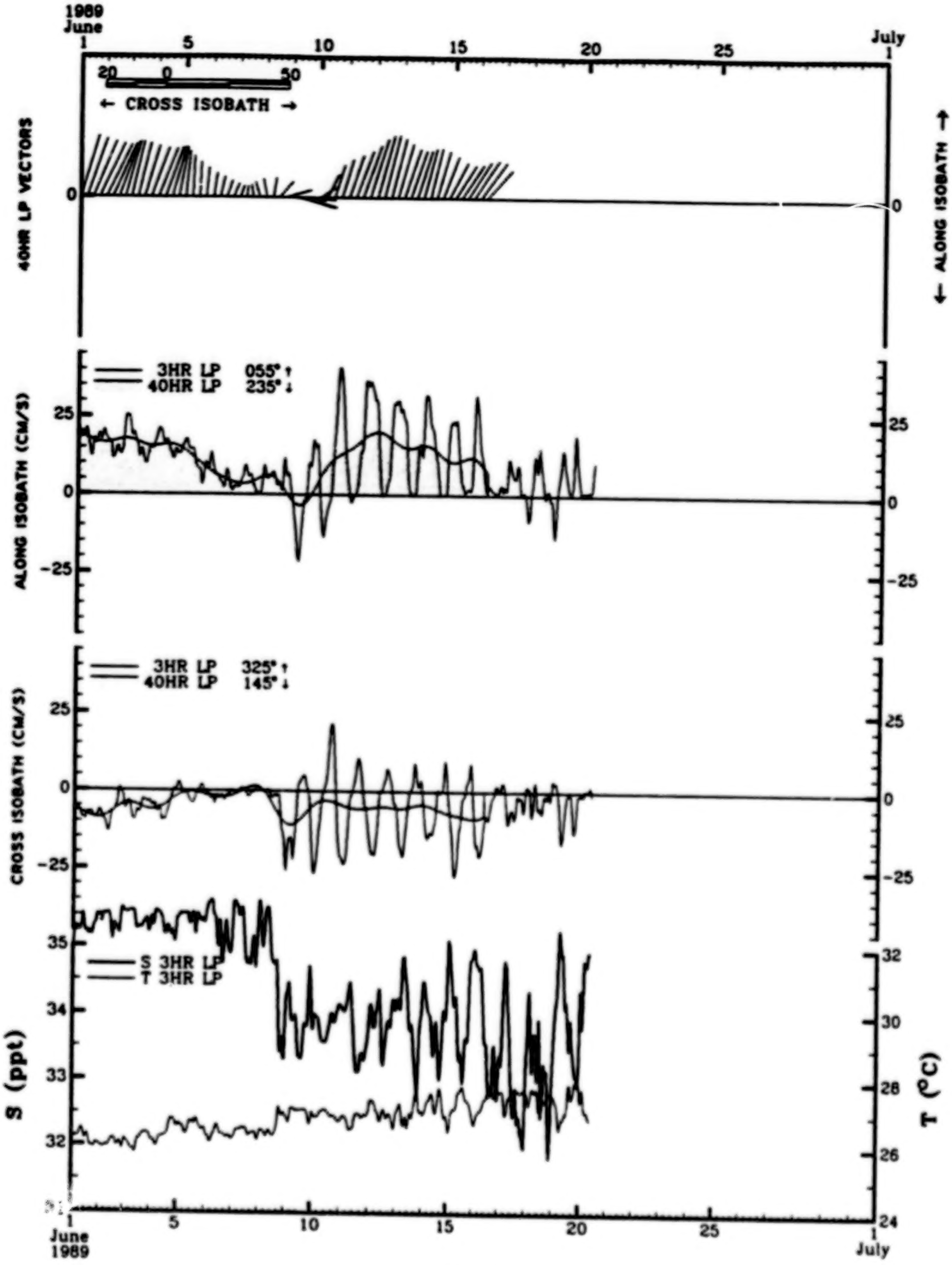

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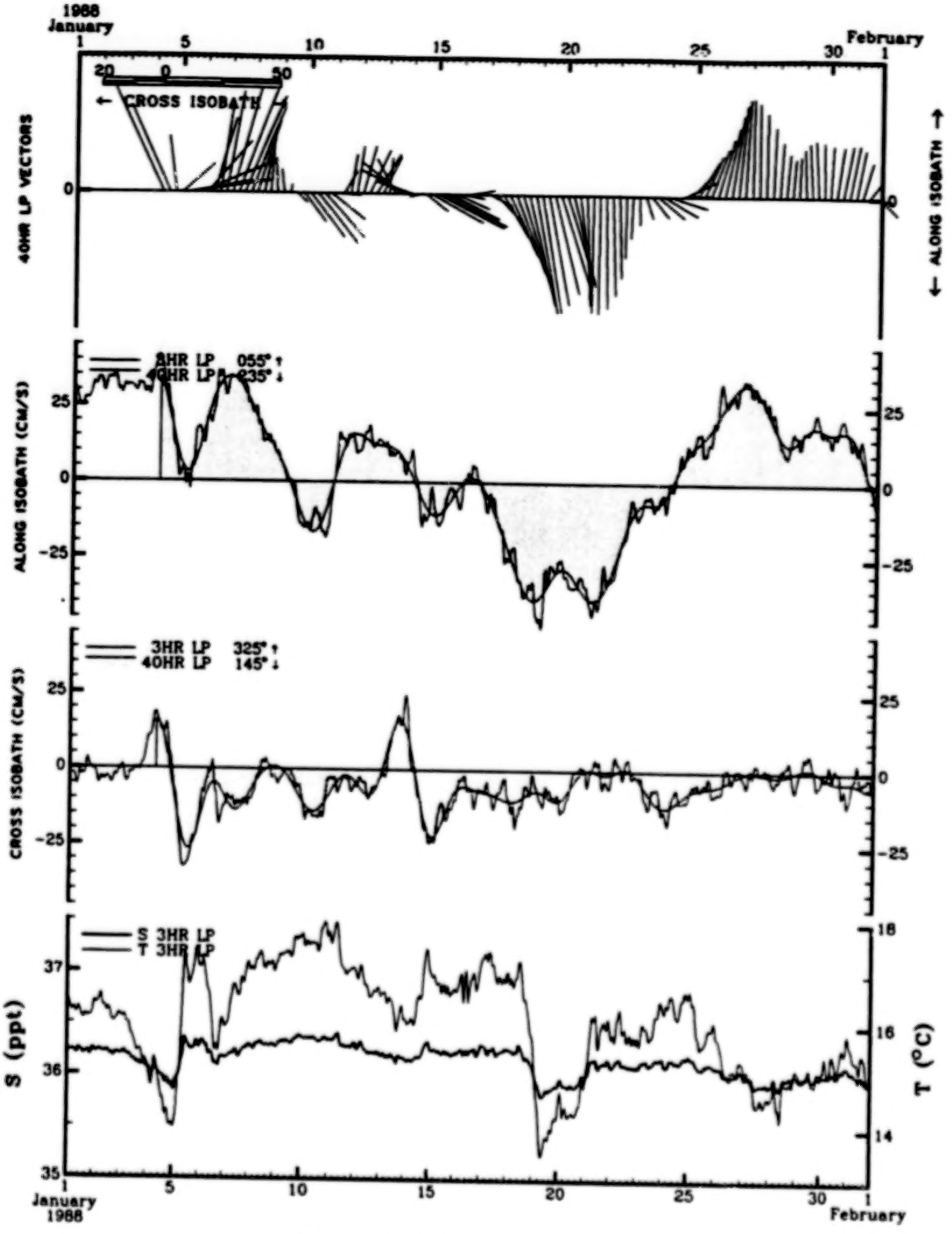

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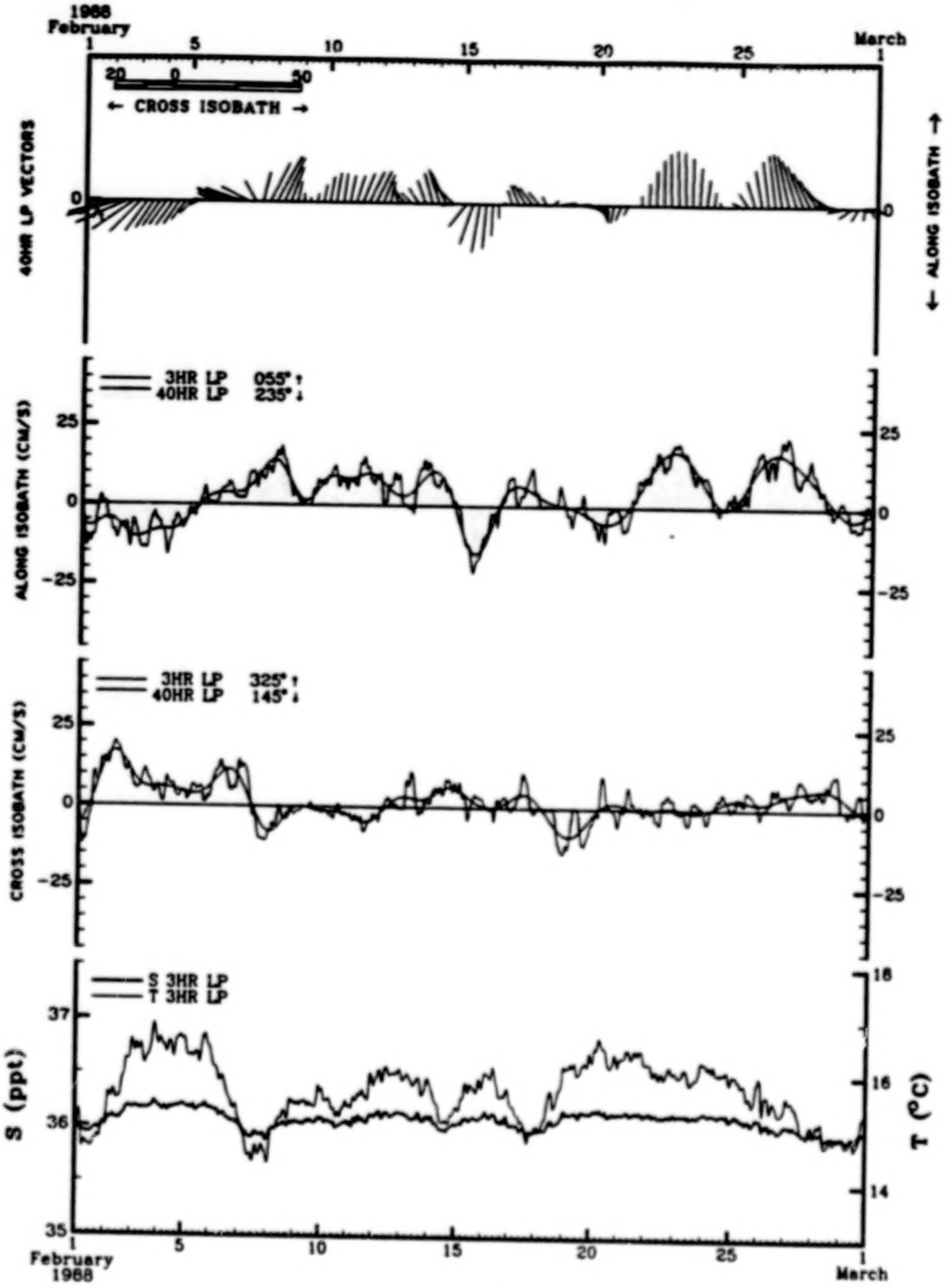

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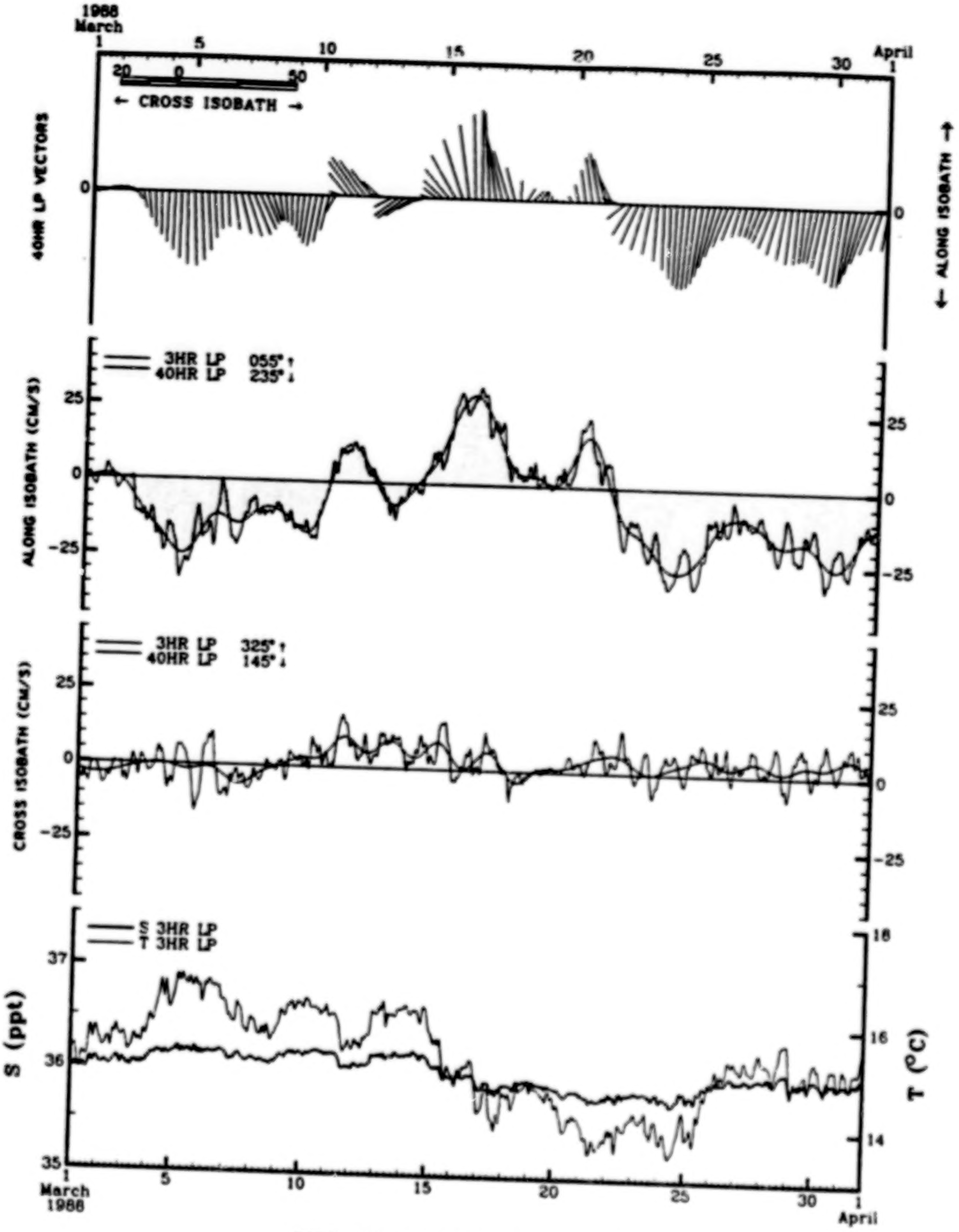

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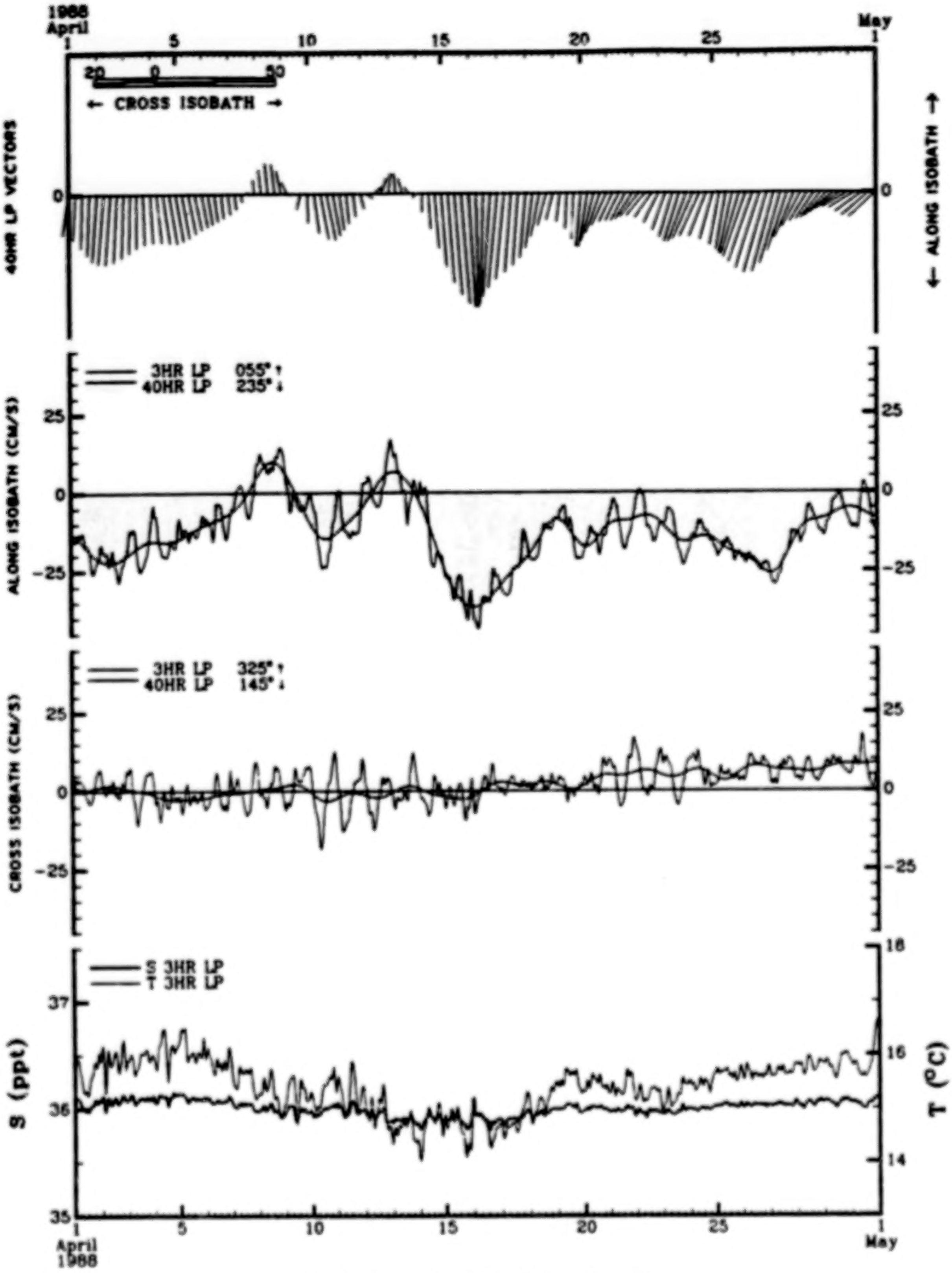

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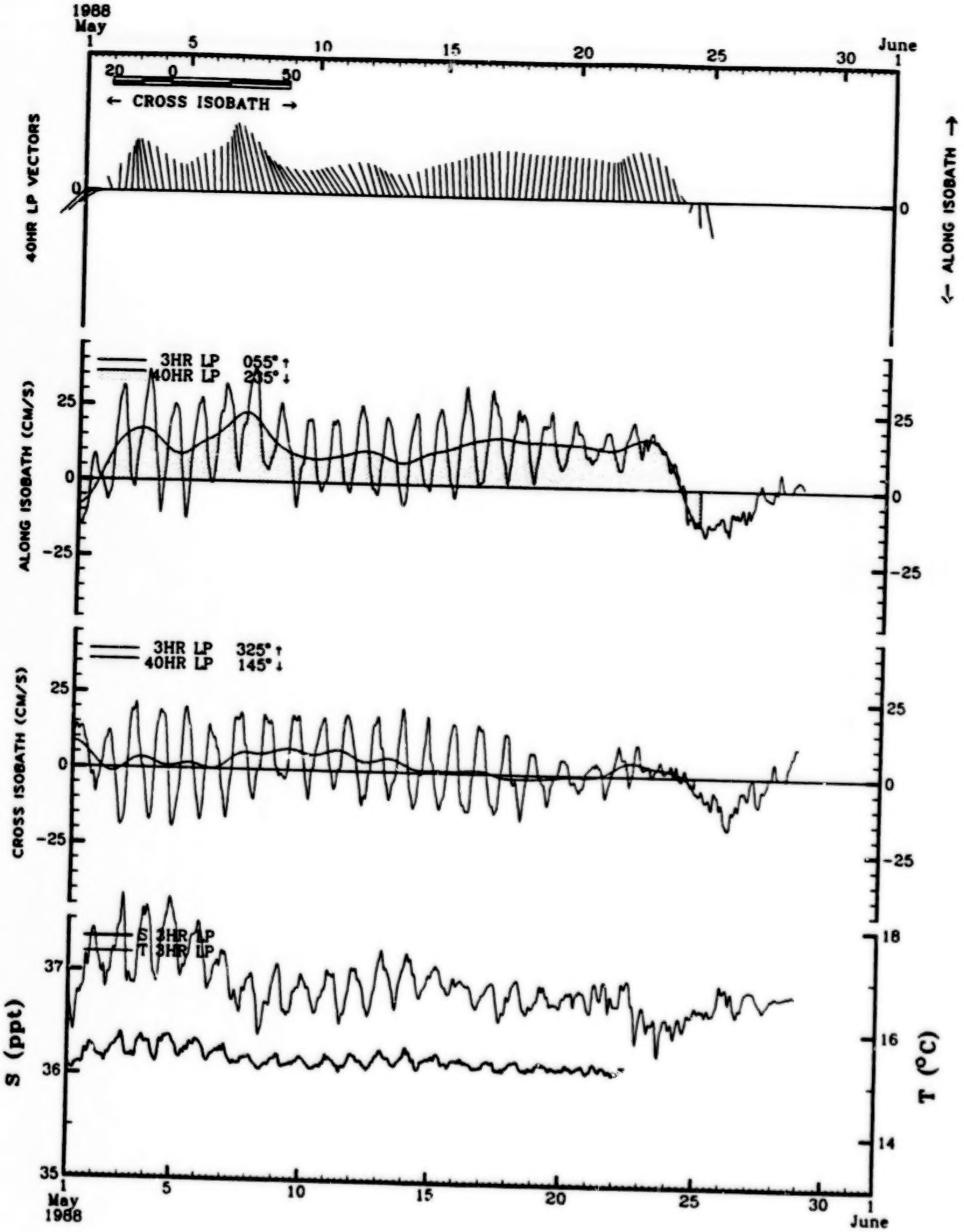

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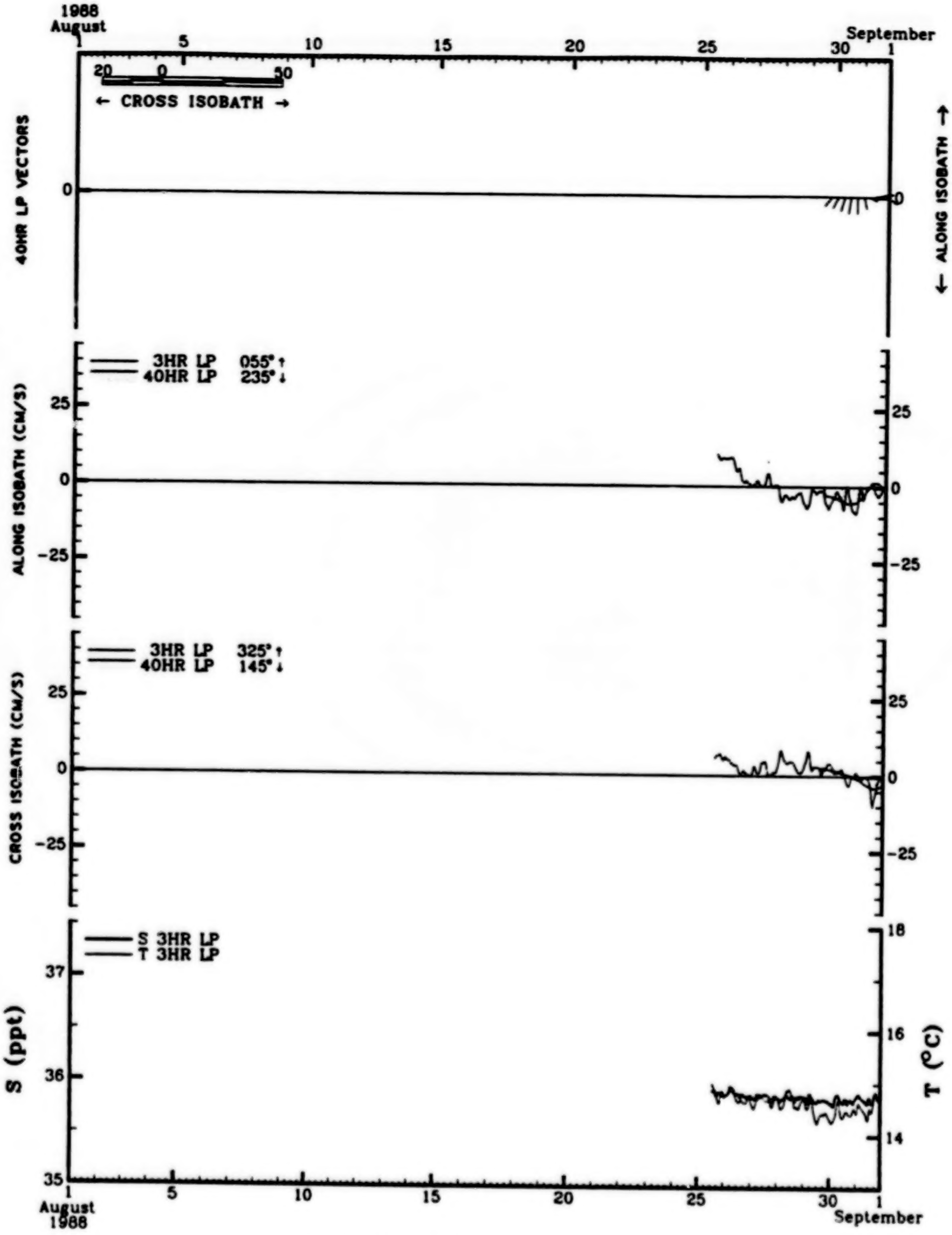

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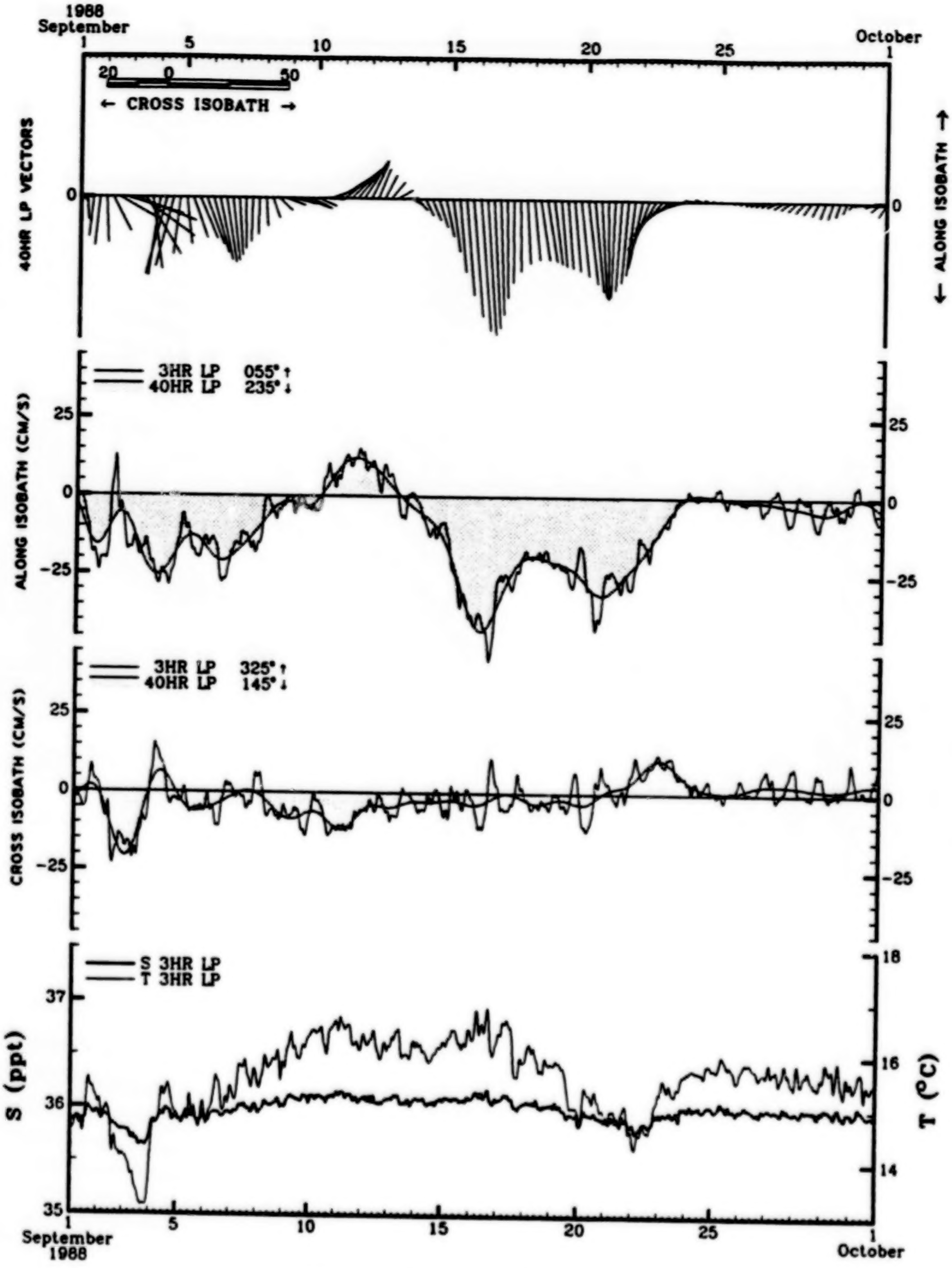

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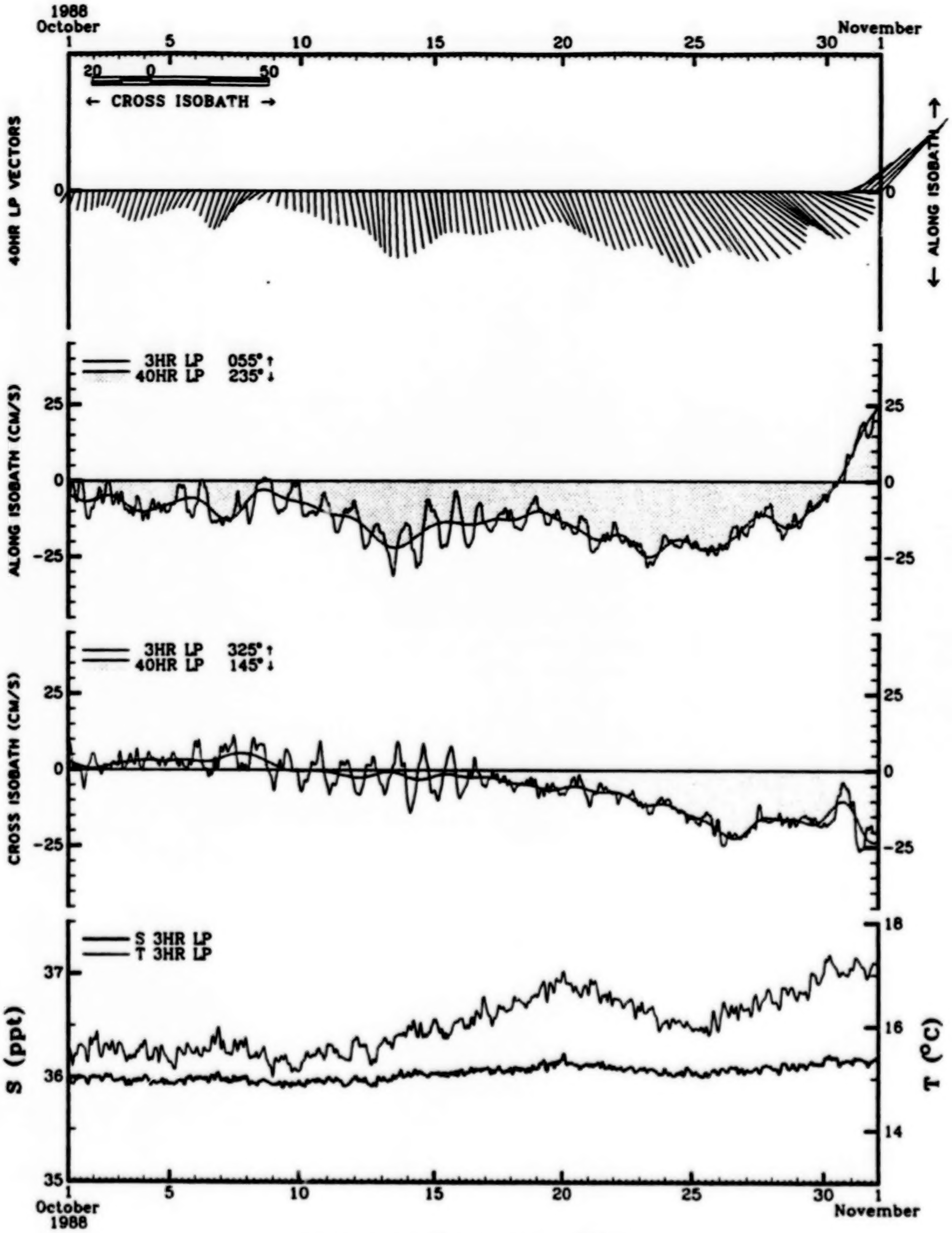

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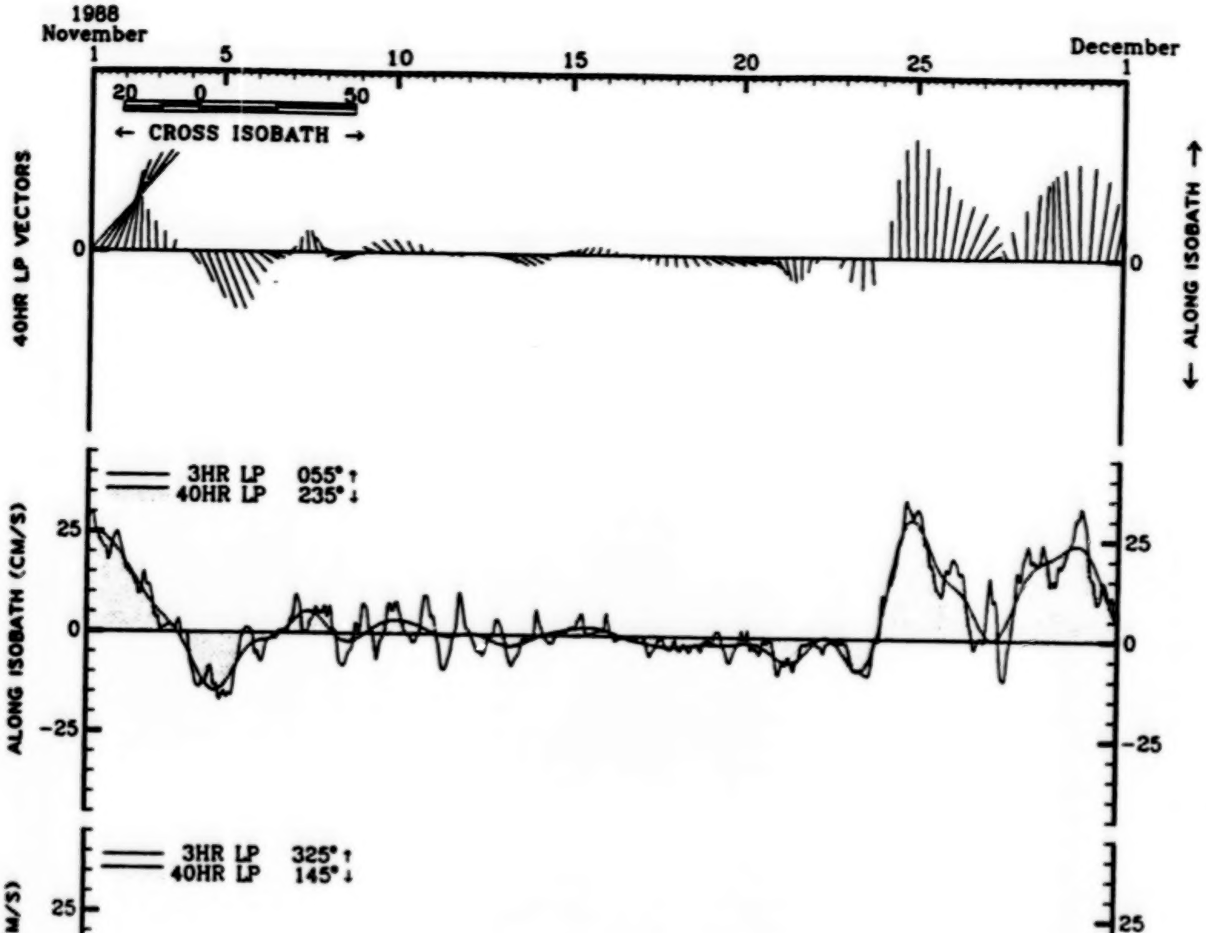

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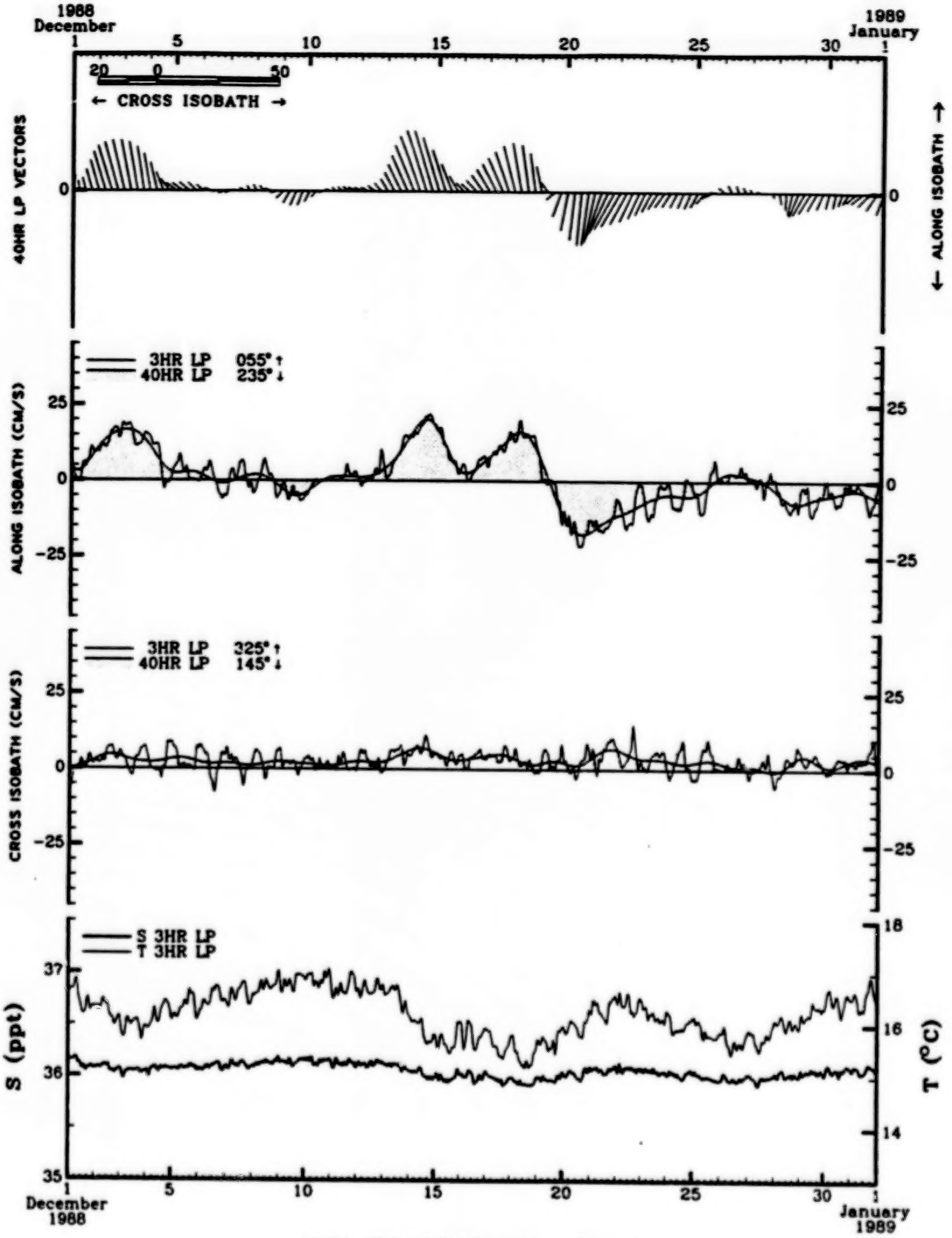

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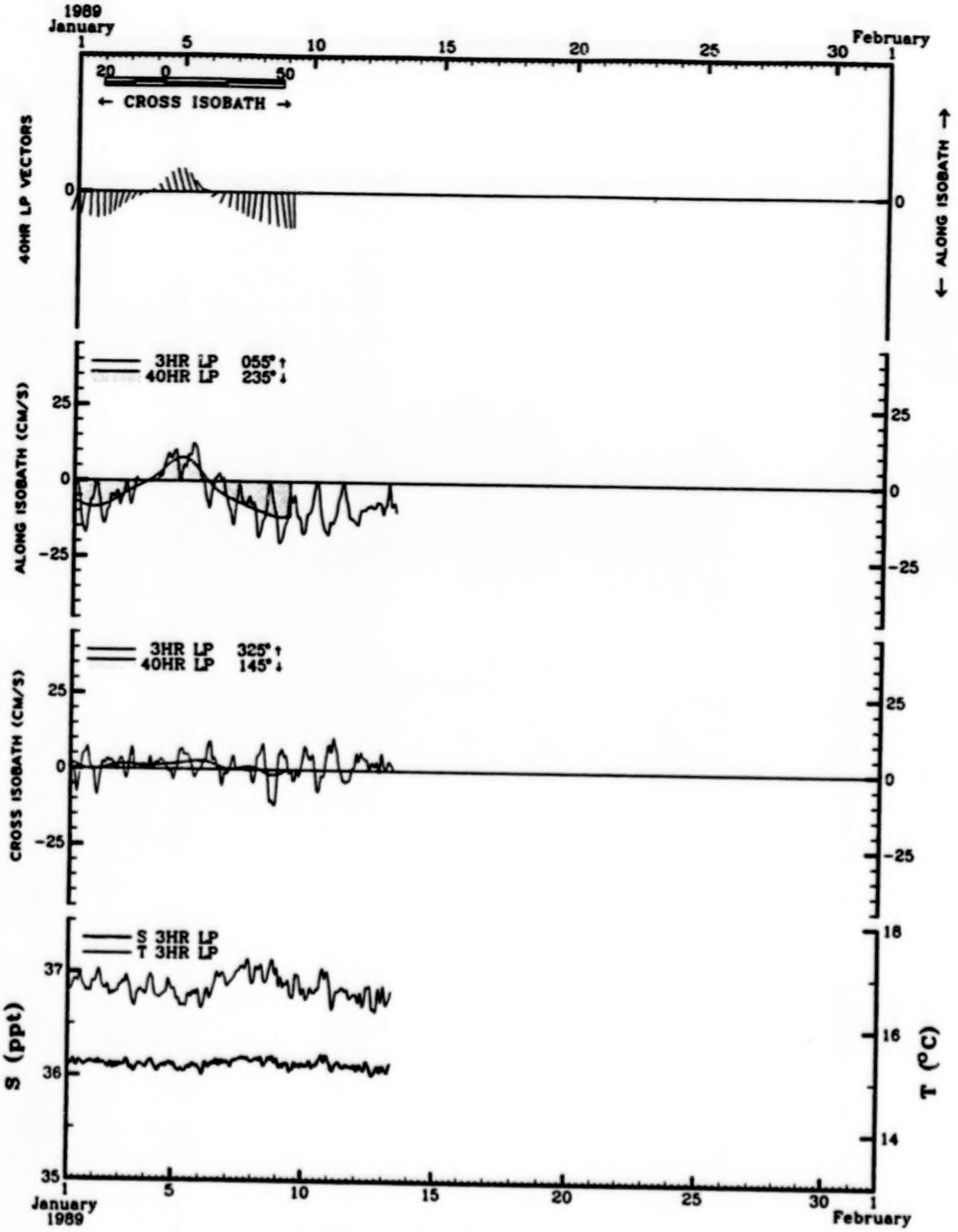

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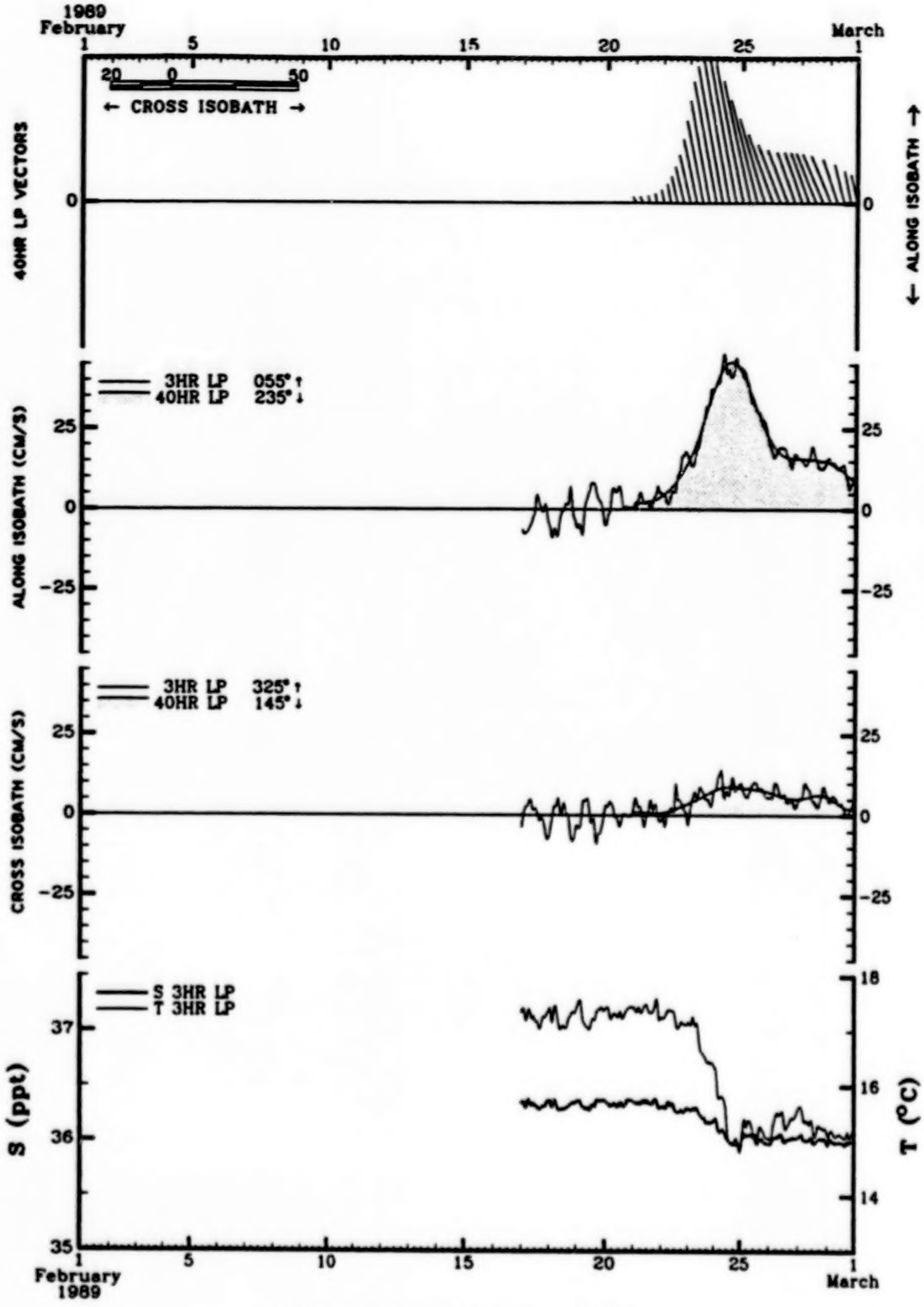

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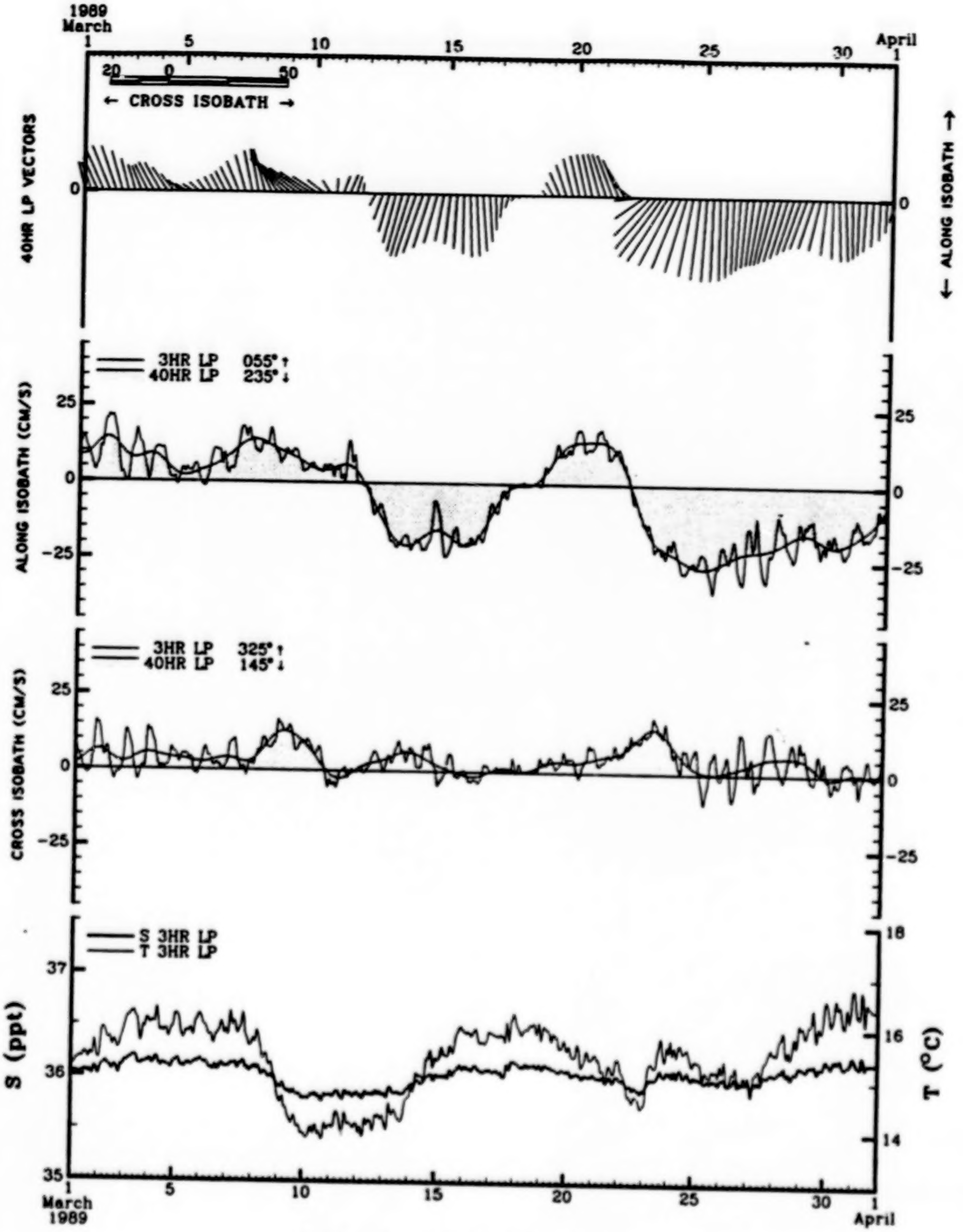

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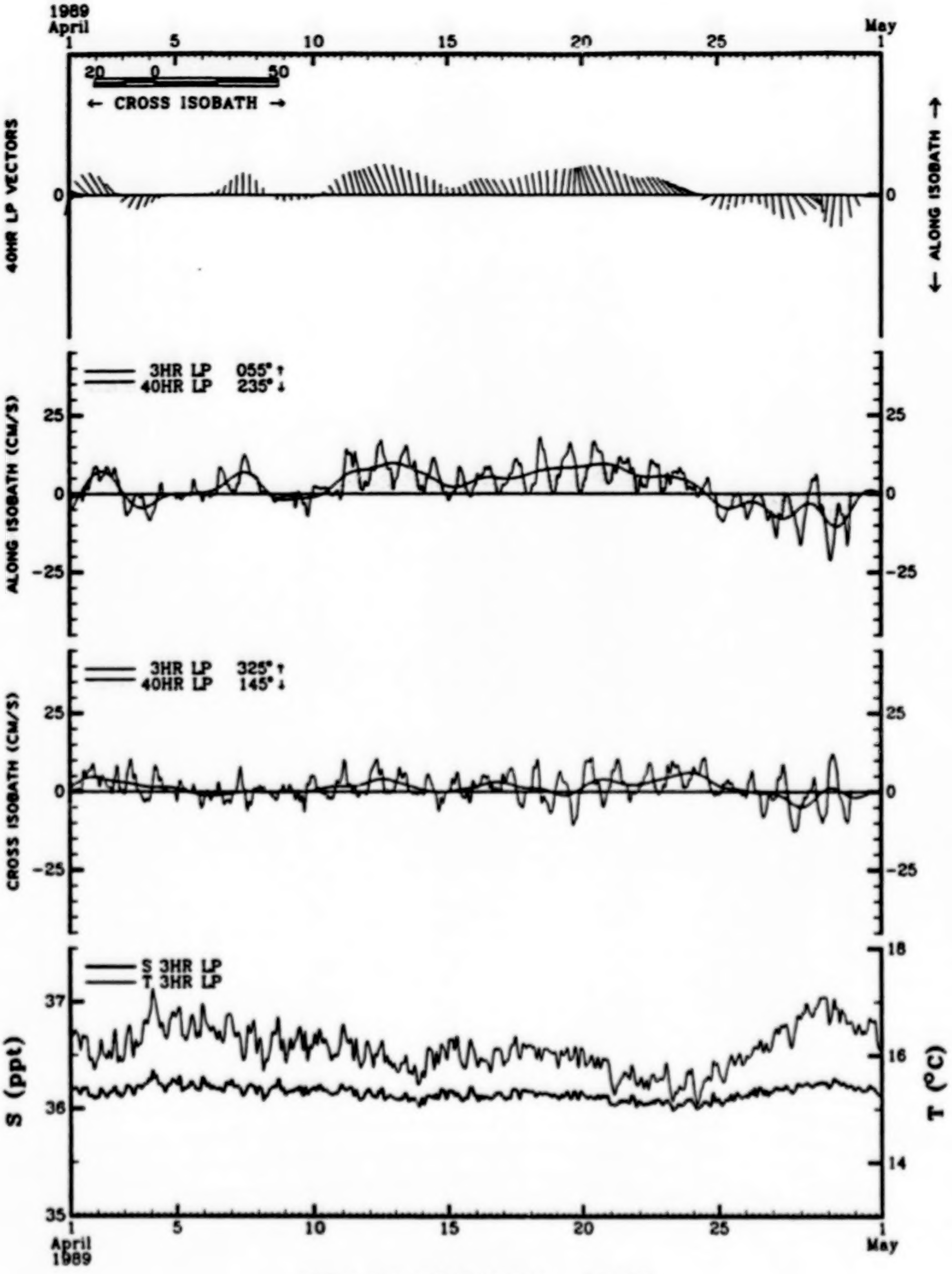

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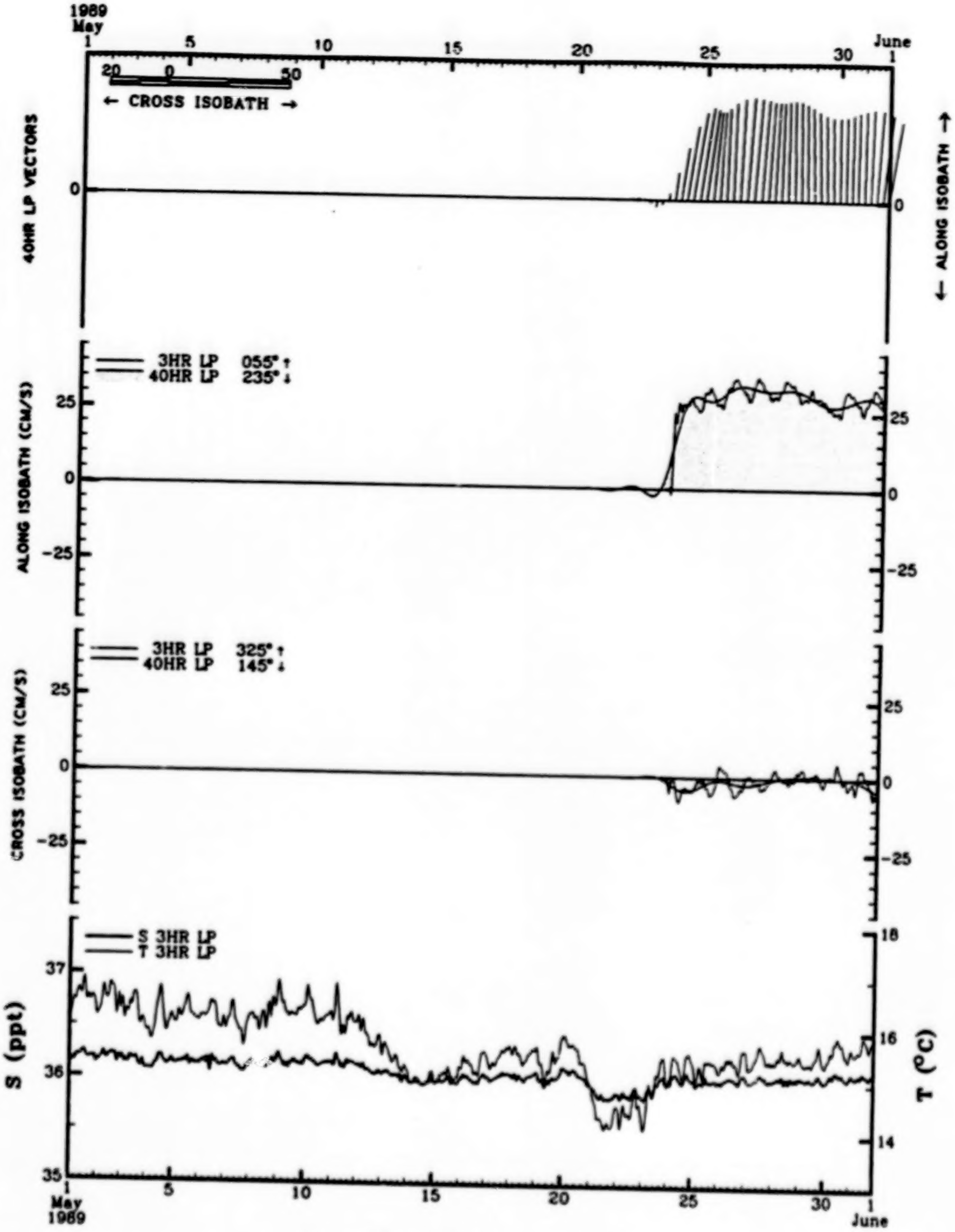

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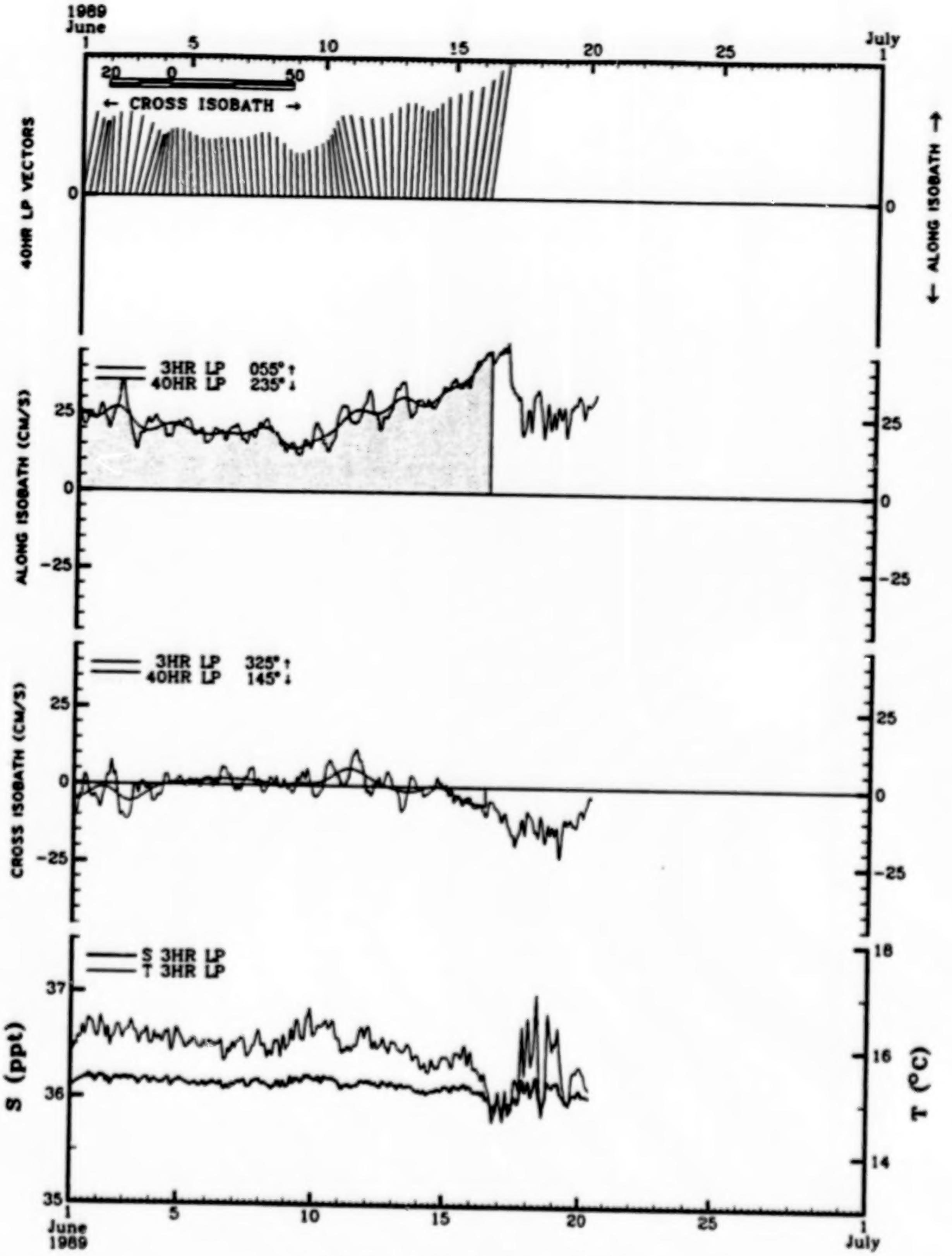

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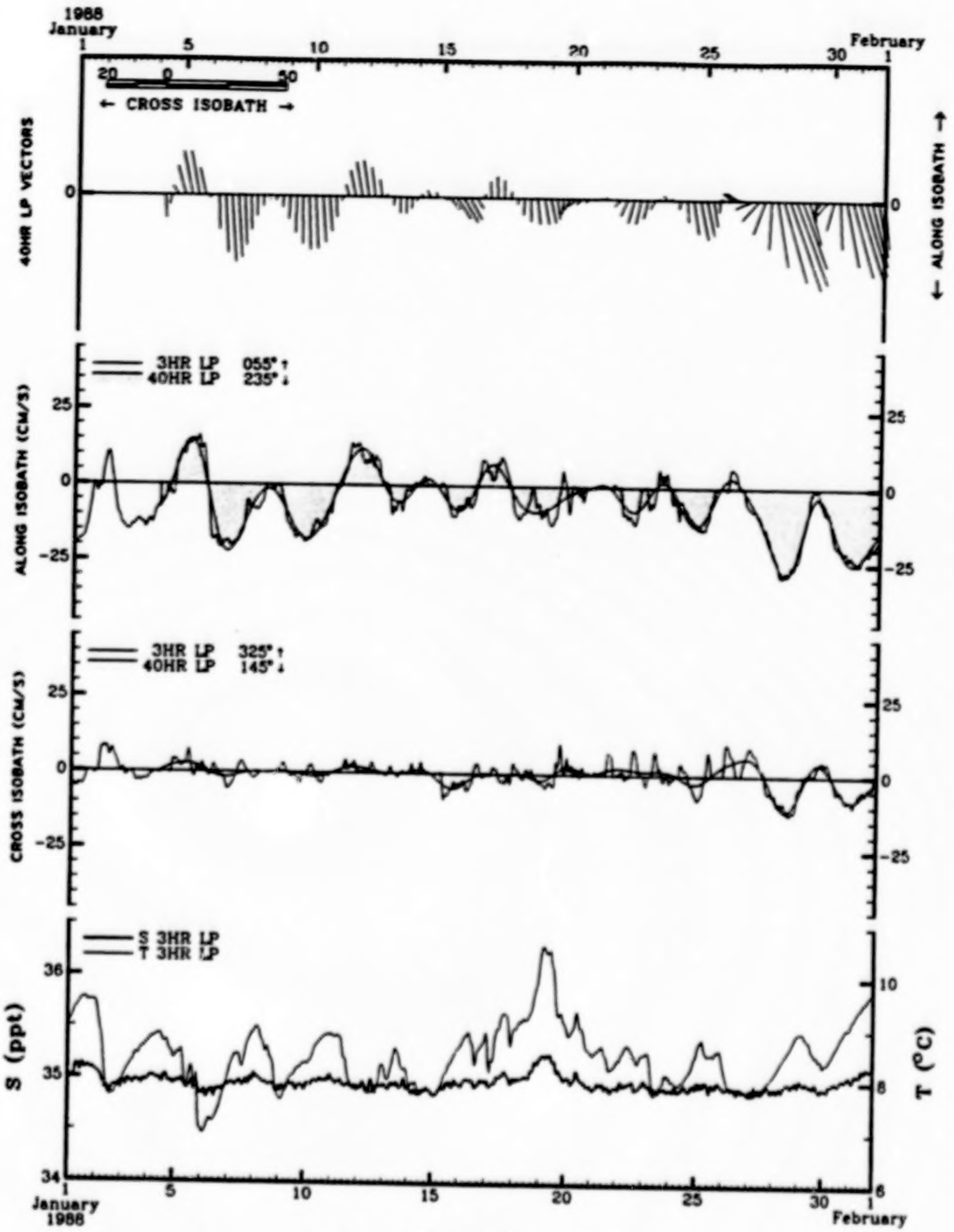

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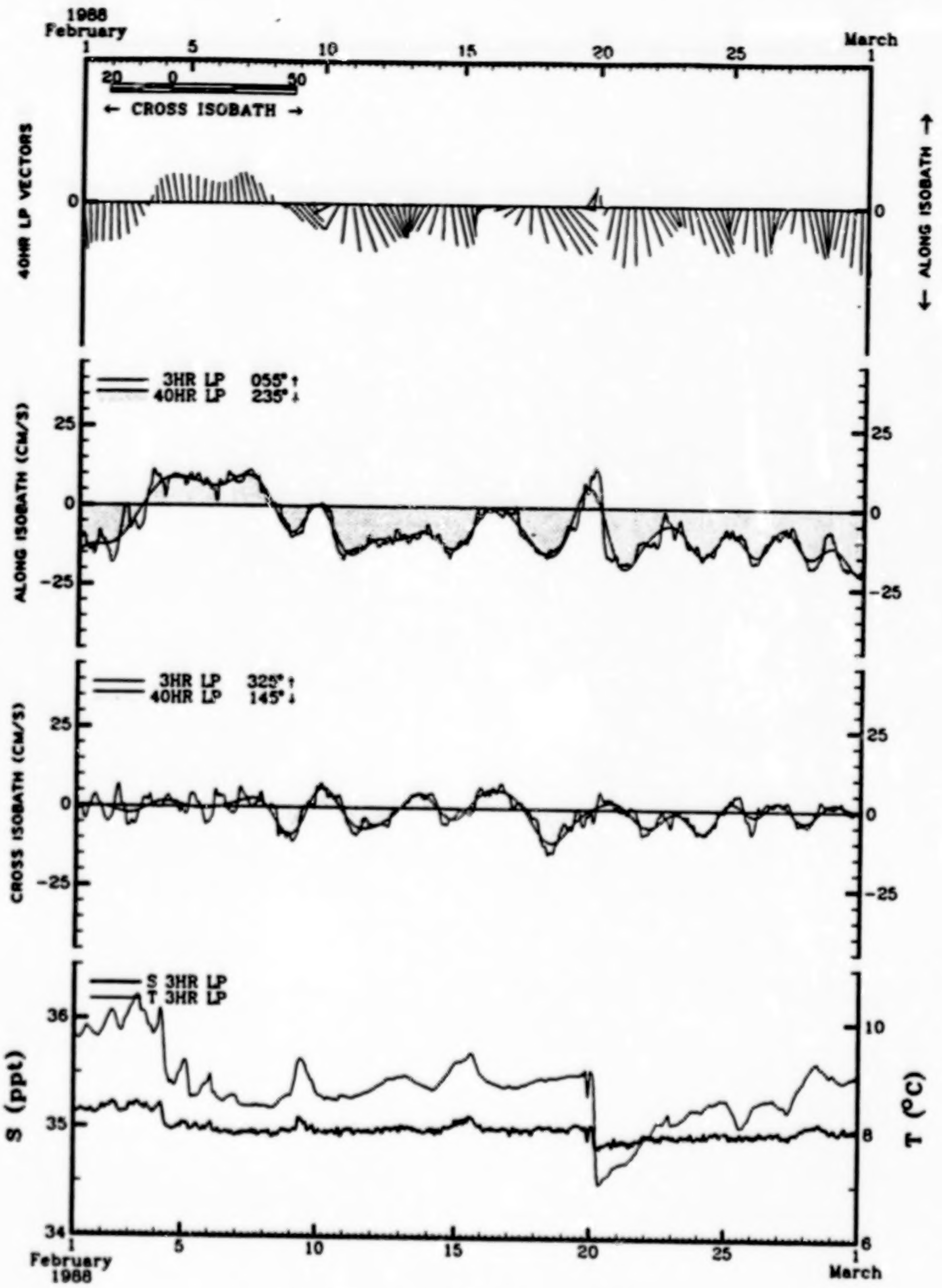

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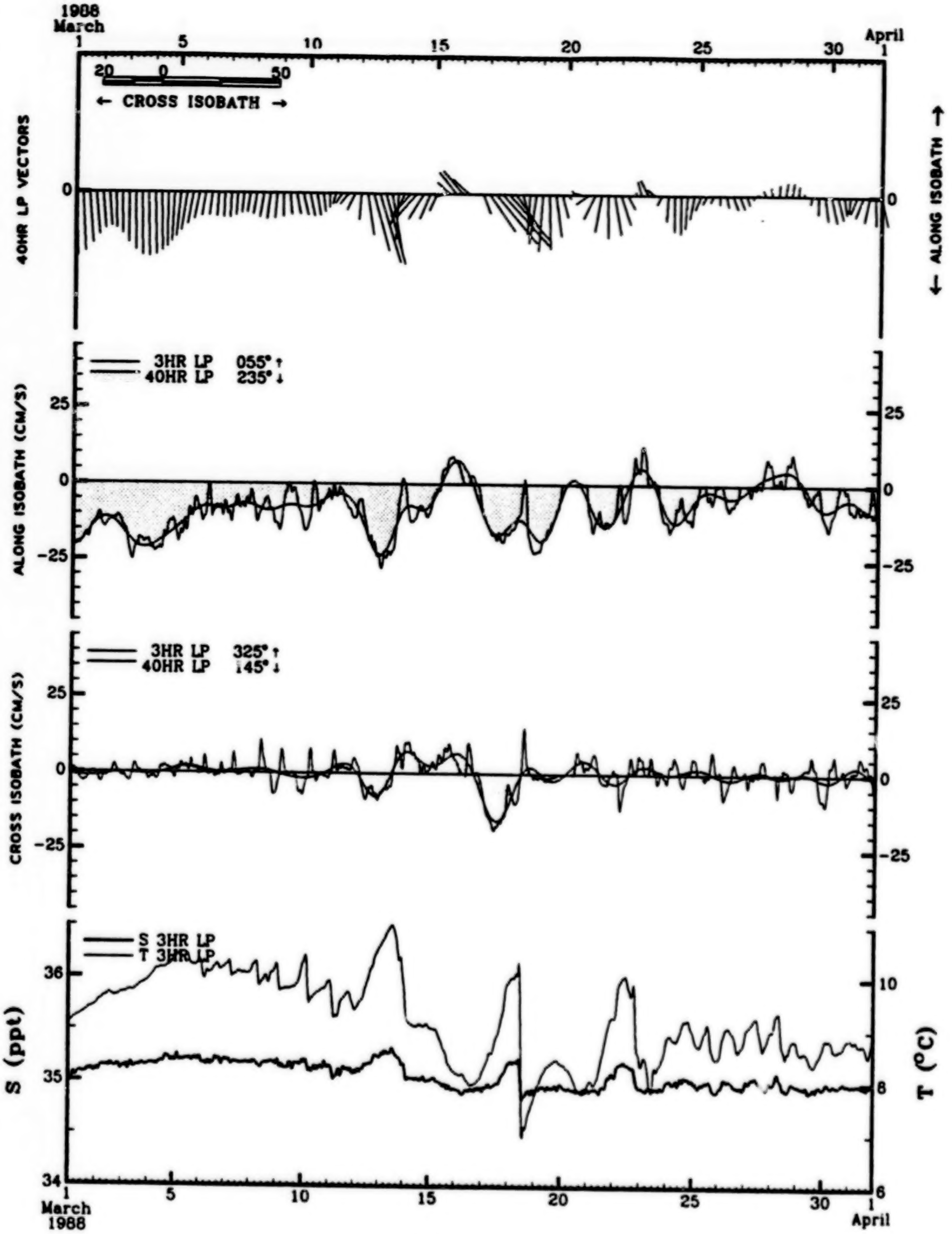

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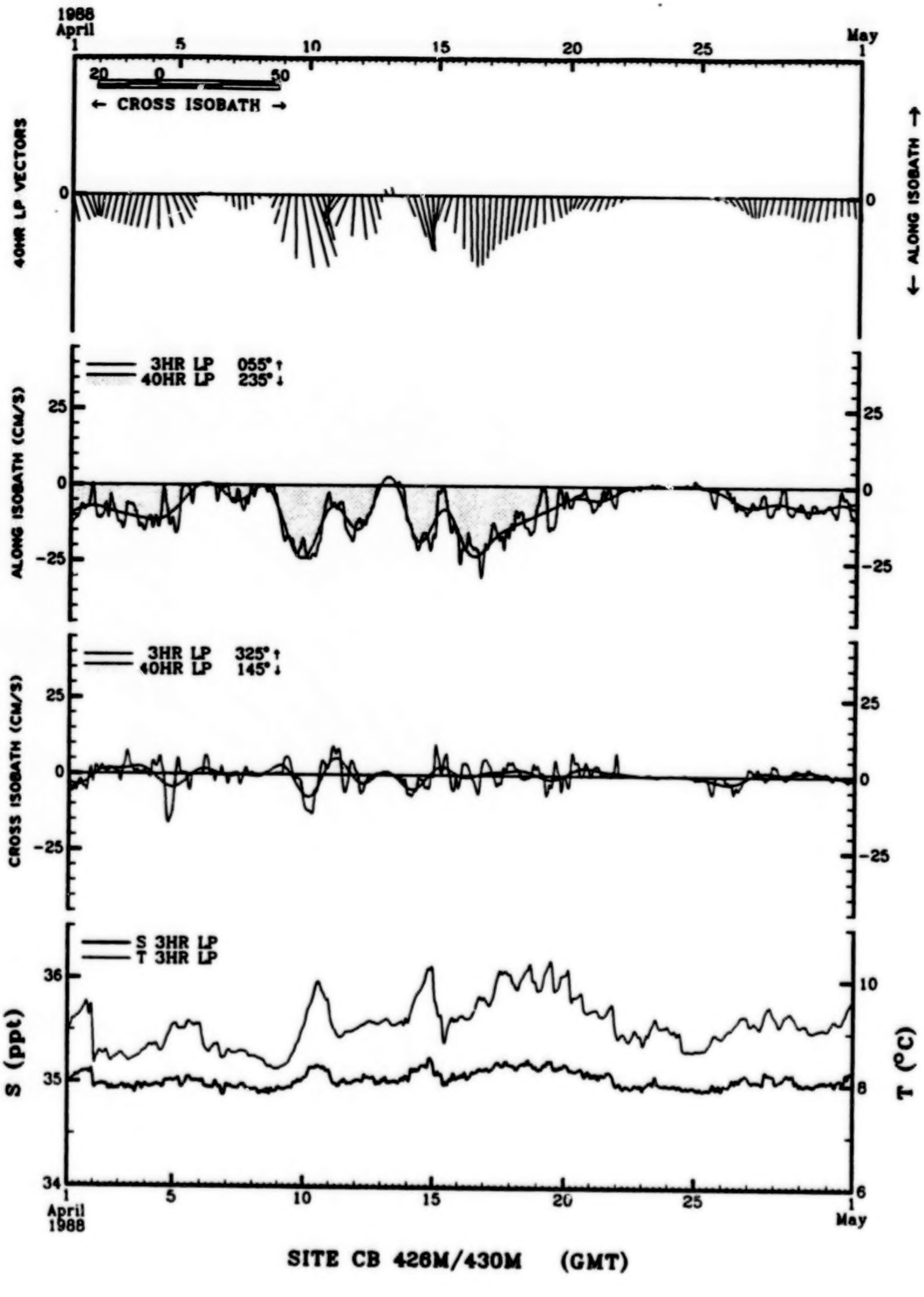

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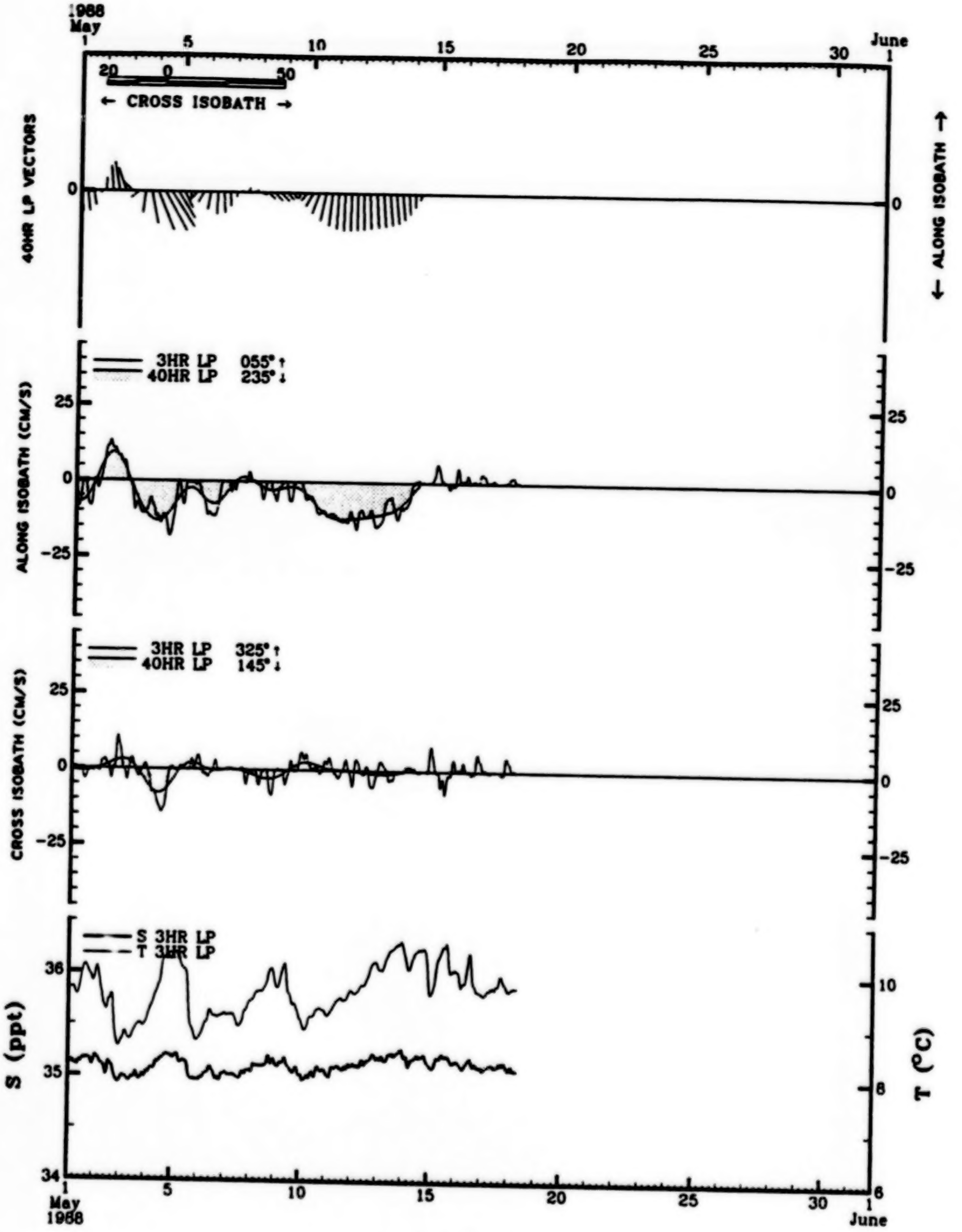

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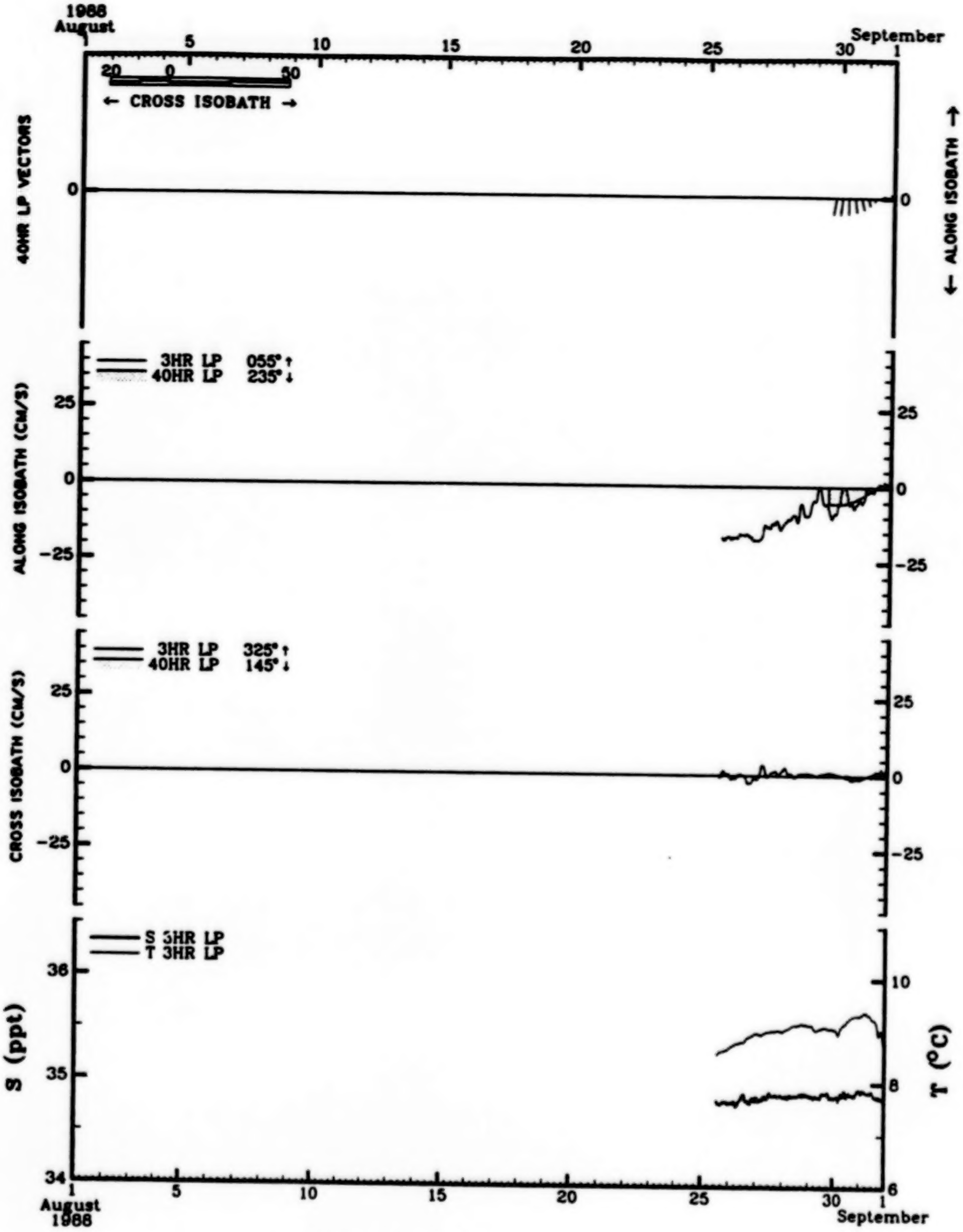

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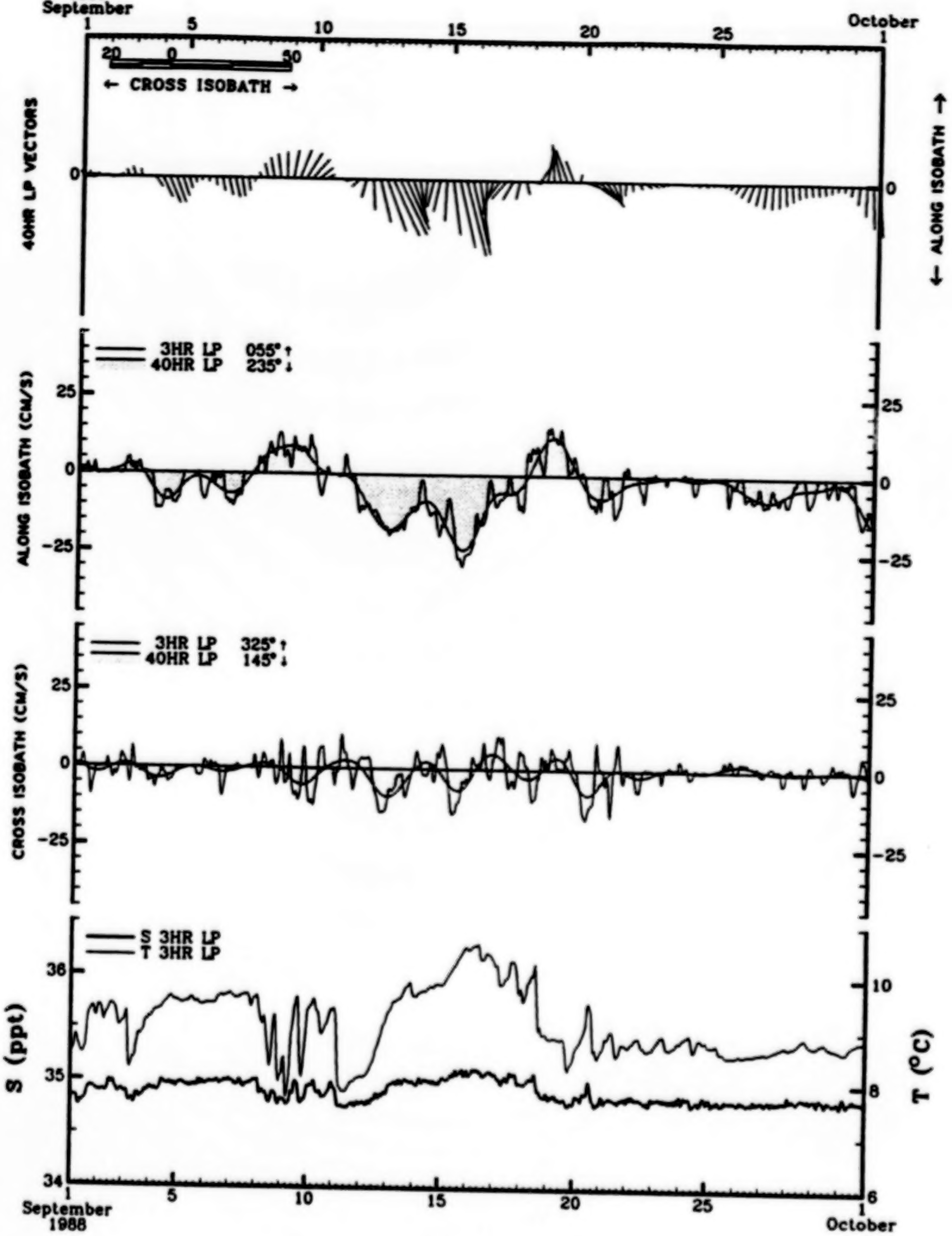

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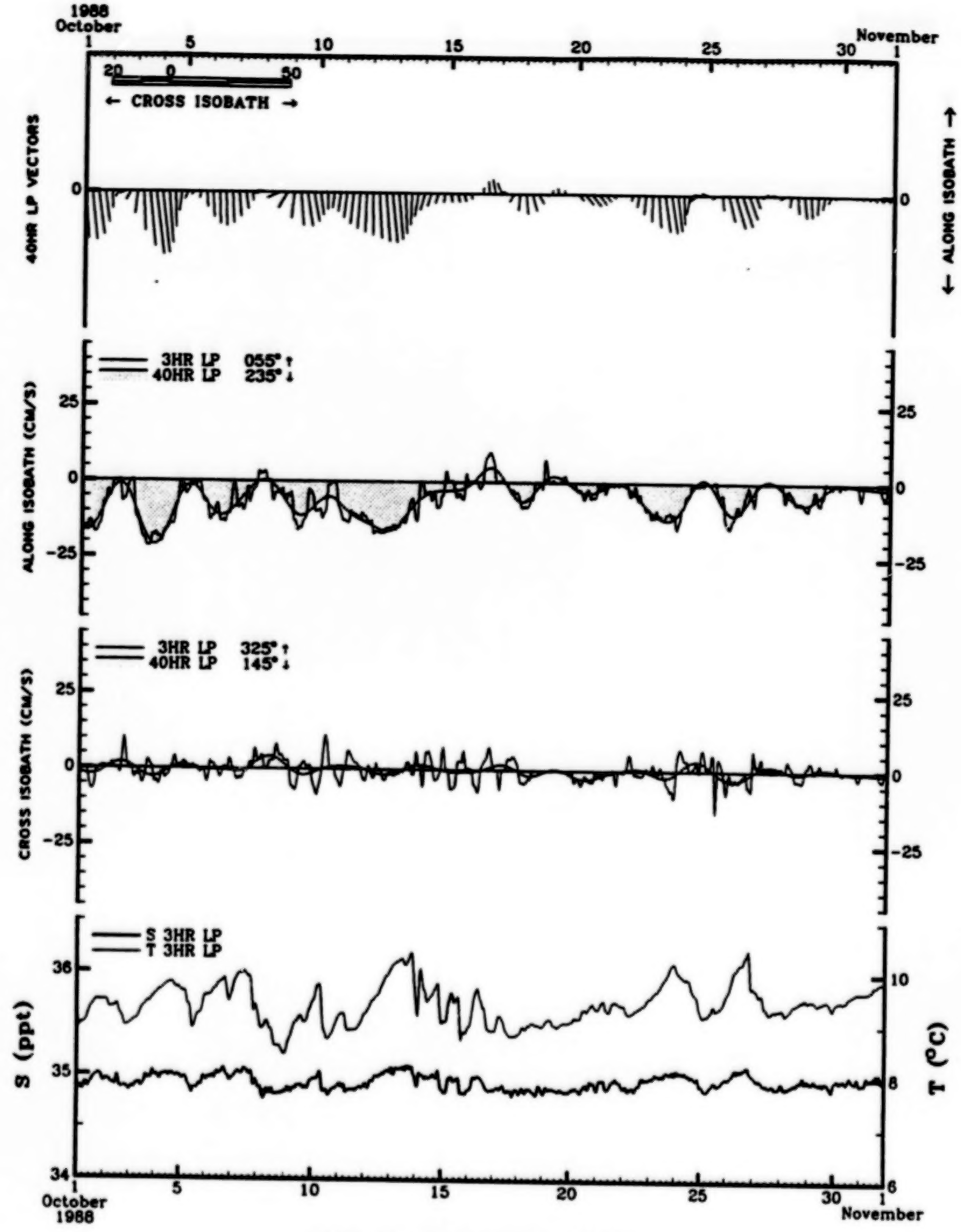

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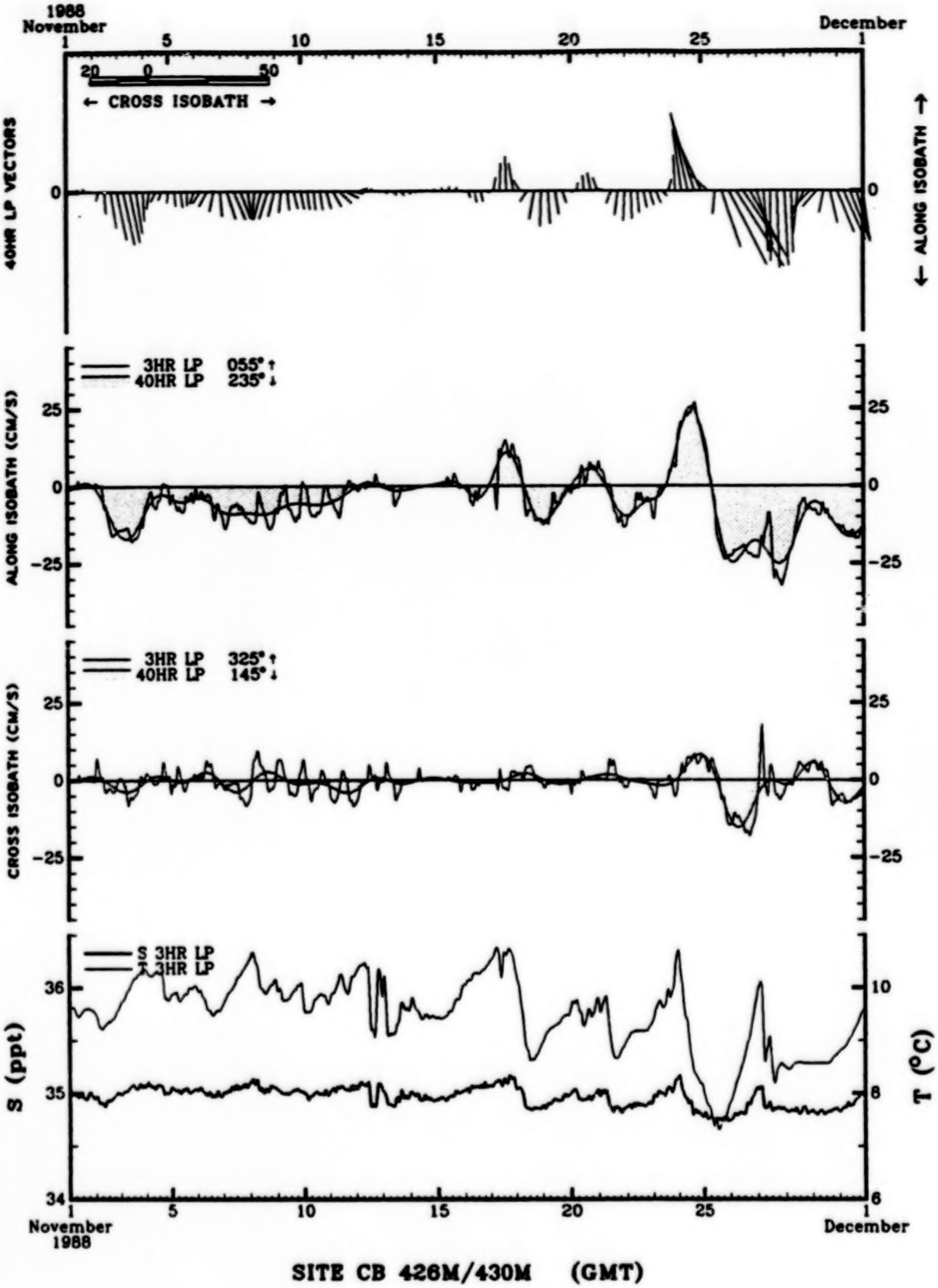
1988
November
December
1
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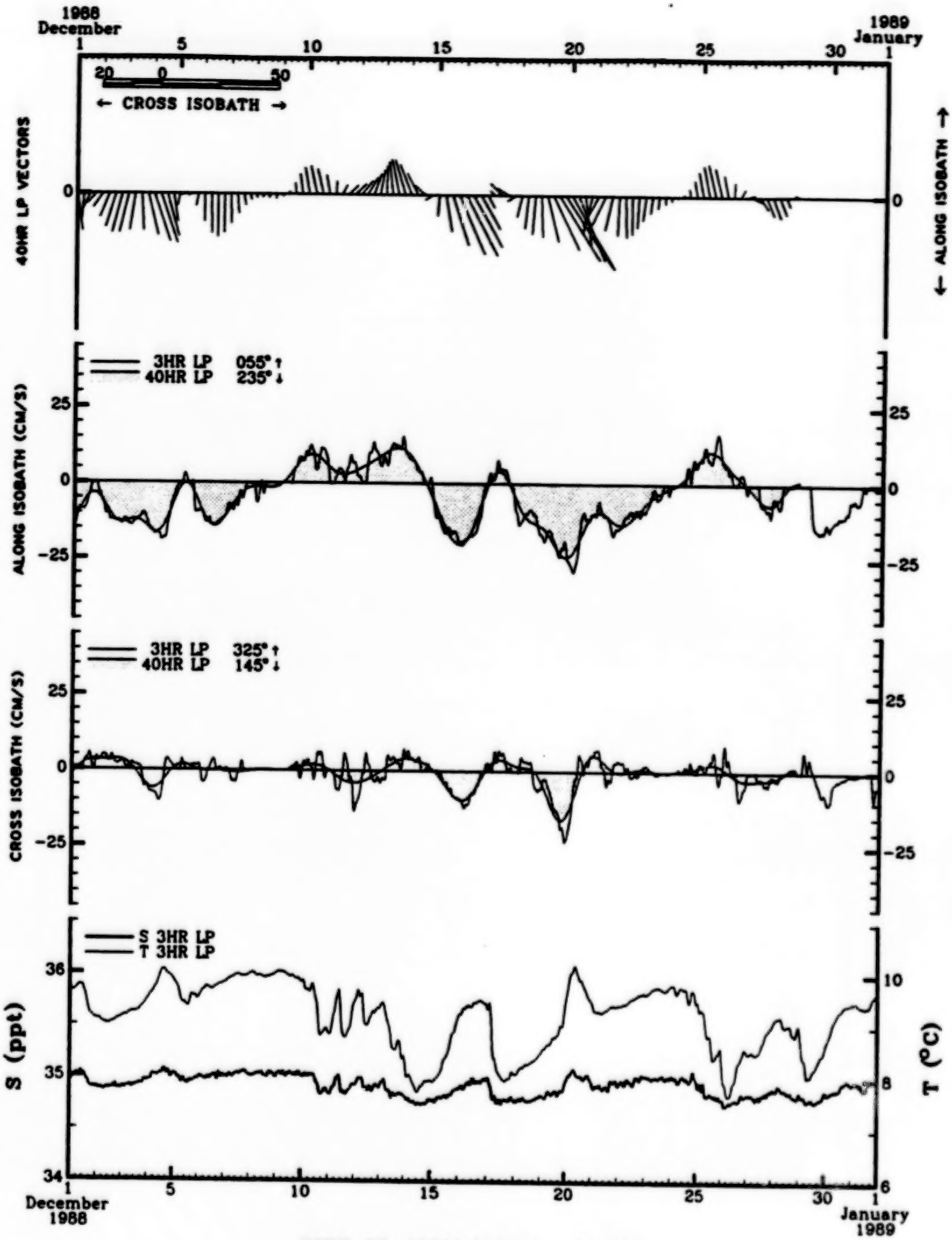
25
1
20 0 50
← CROSS ISOBATH →
40HR LP VECTORS
← ALONG ISOBATH →
0
3HR LP 055° ↑
40HR LP 235° ↓
ALONG ISOBATH (CM/S)
25
0
-25
3HR LP 325° ↑
40HR LP 145° ↓
CROSS ISOBATH (CM/S)
25
0
-25
S 3HR LP
T 3HR LP
S (ppt)
T (°C)
36
35
34
10
8
6
November
1988
December
SITE CB 426M/430M (GMT)



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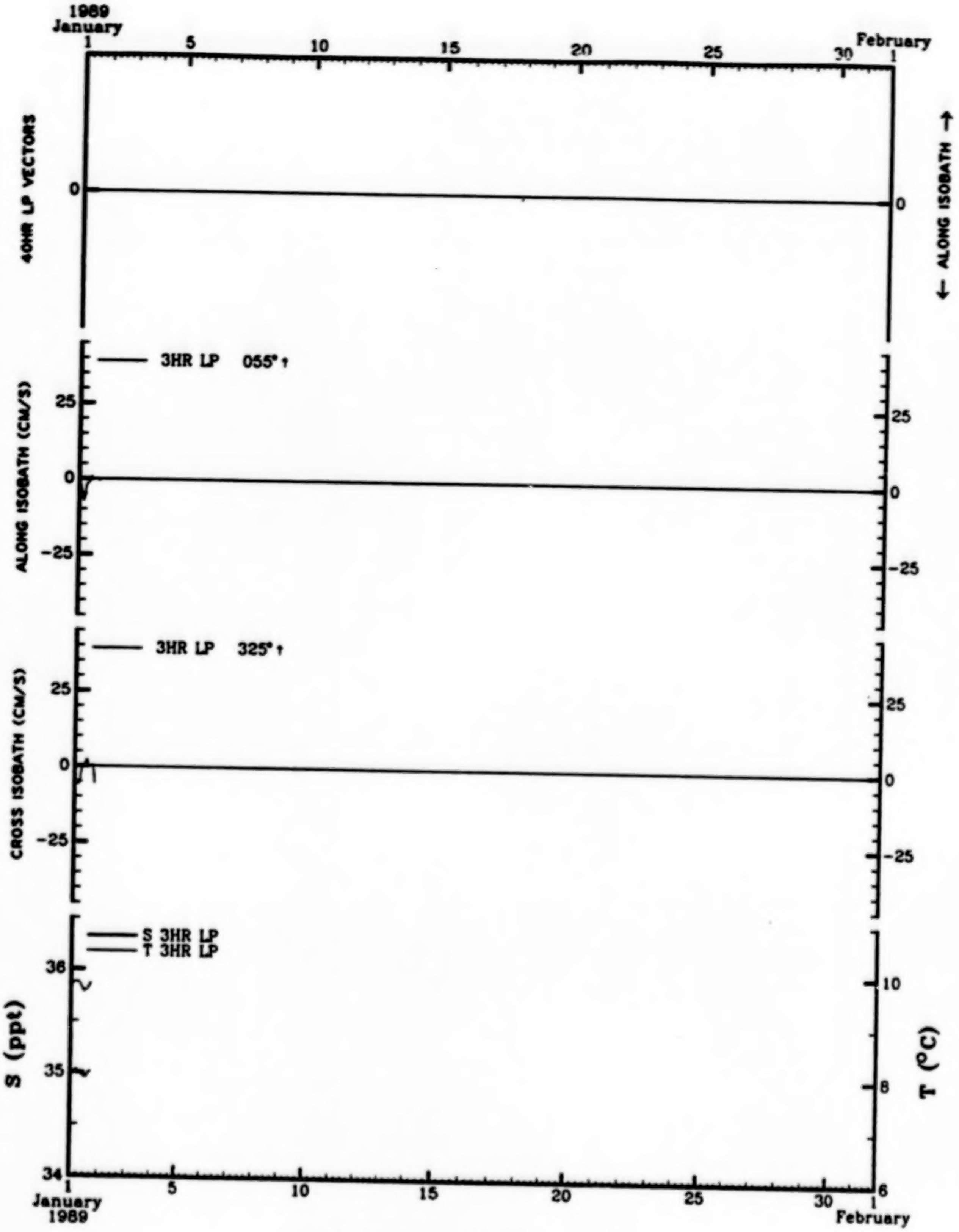
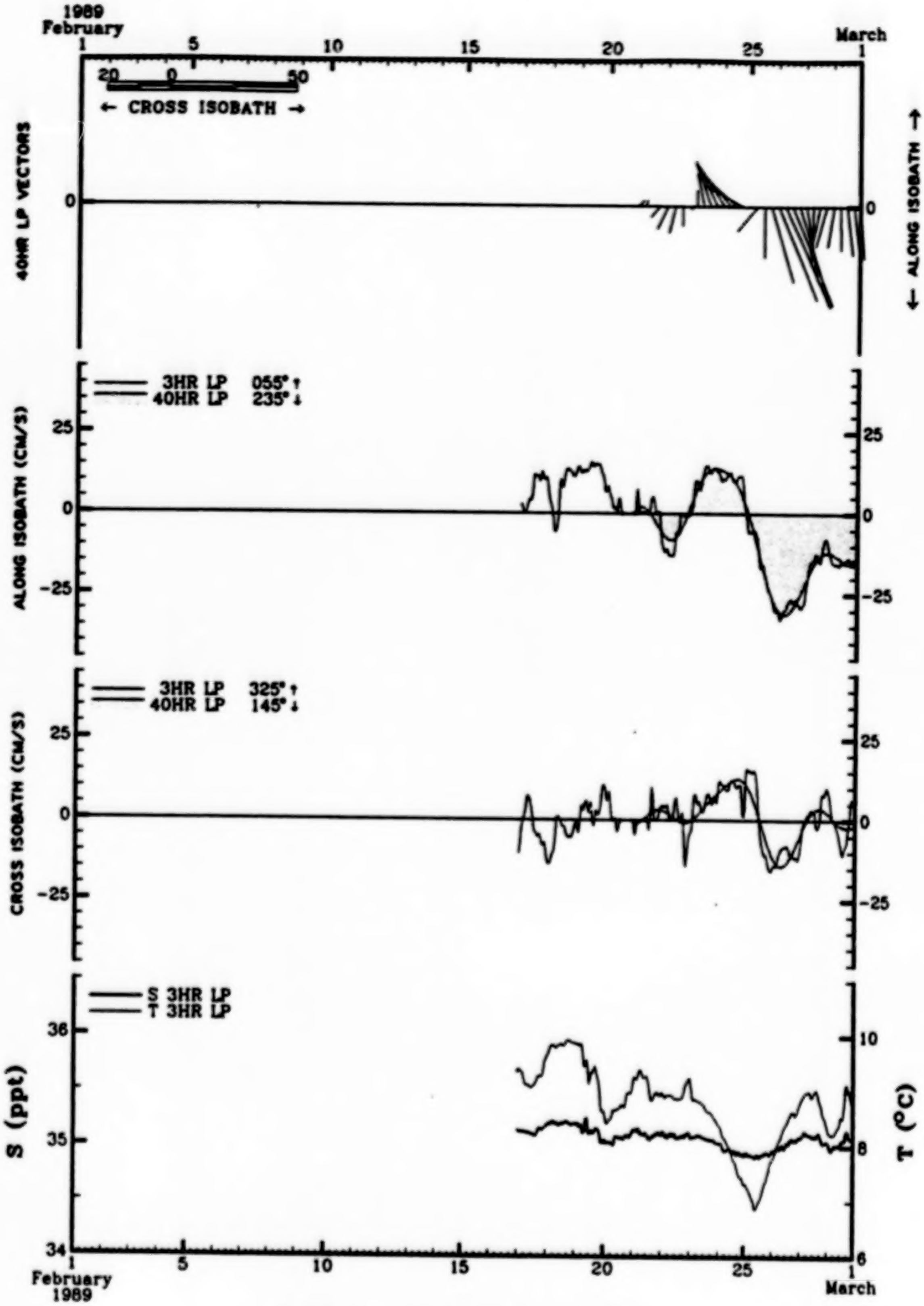


SITE CB 426M/430M (GMT)

C-251



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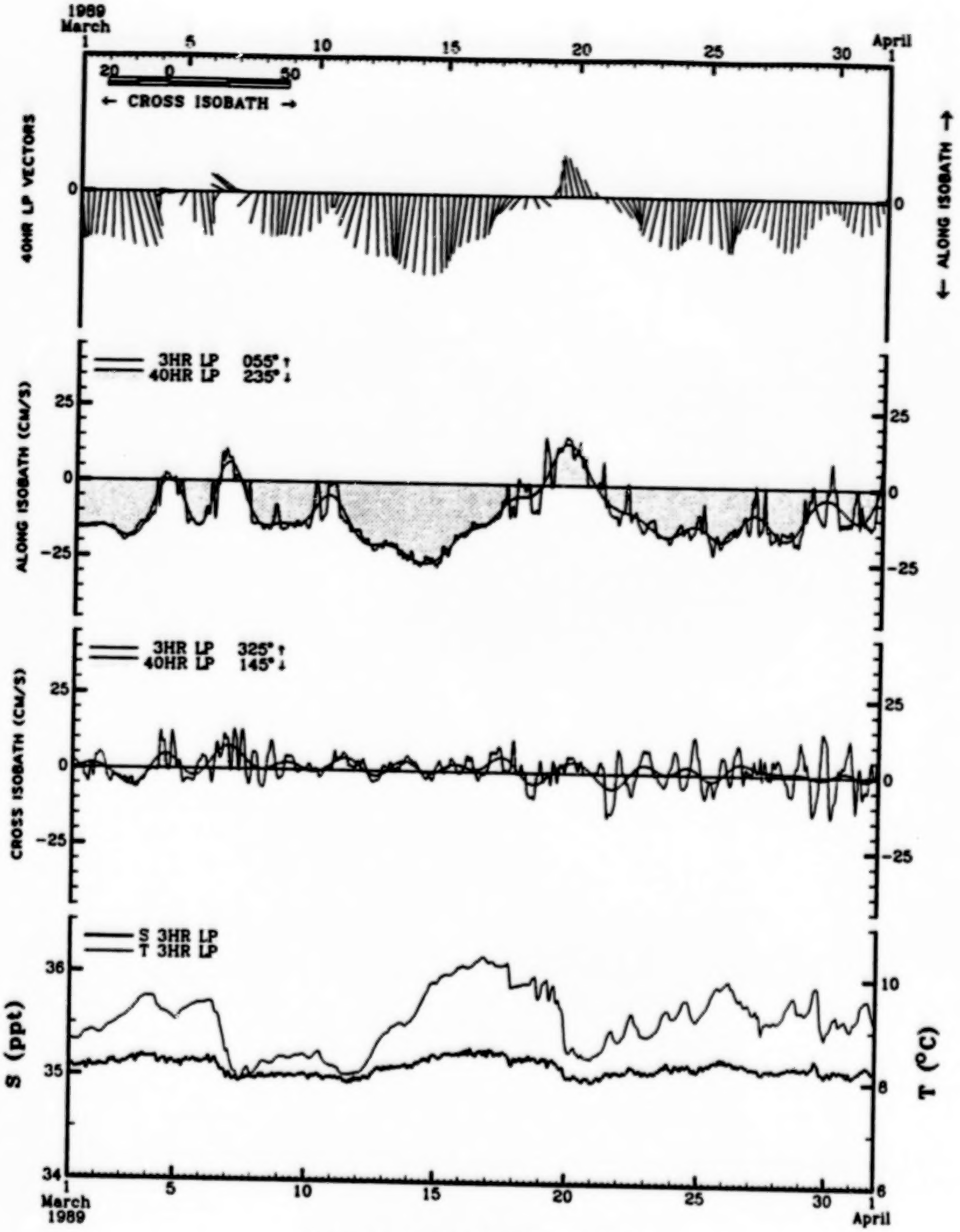

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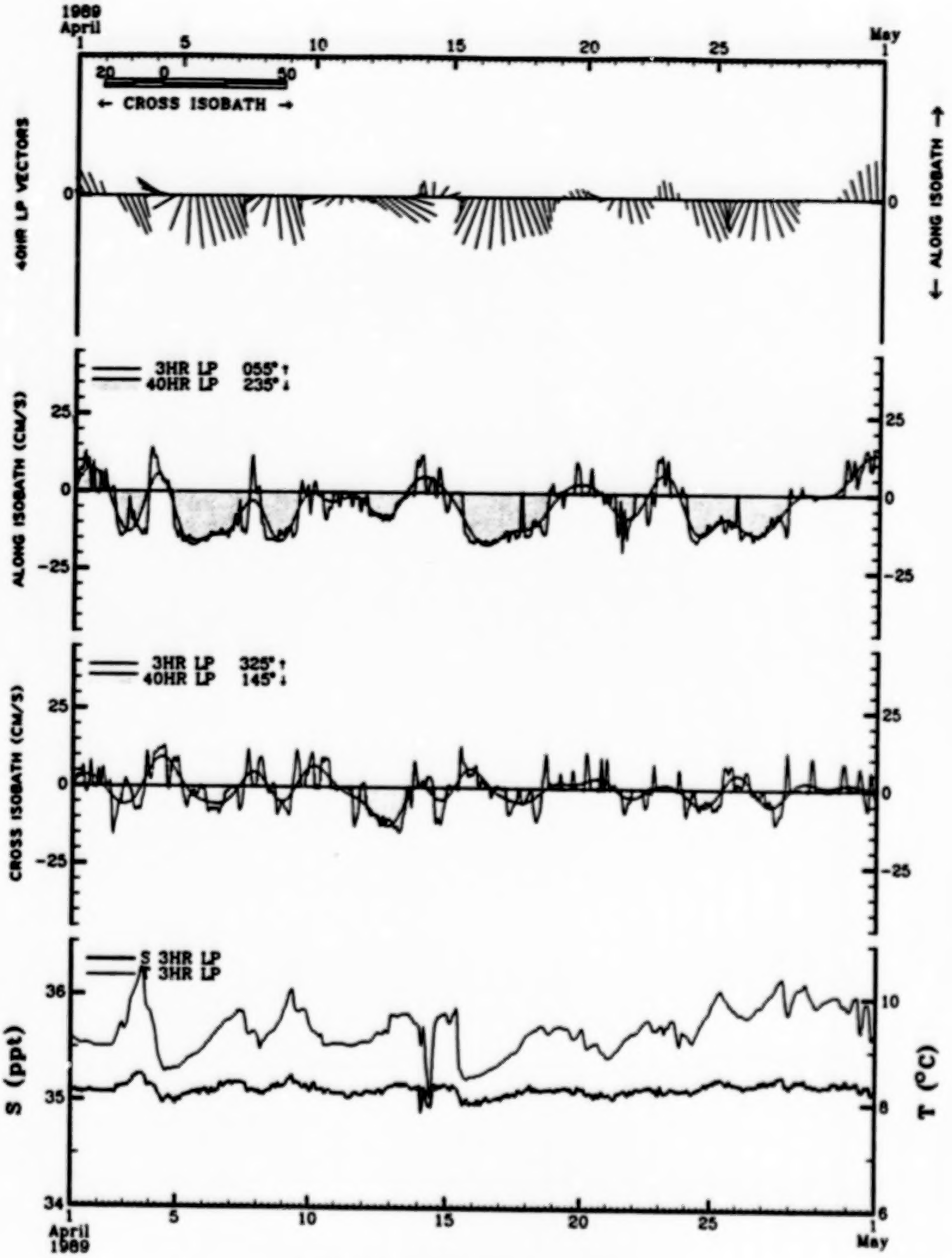

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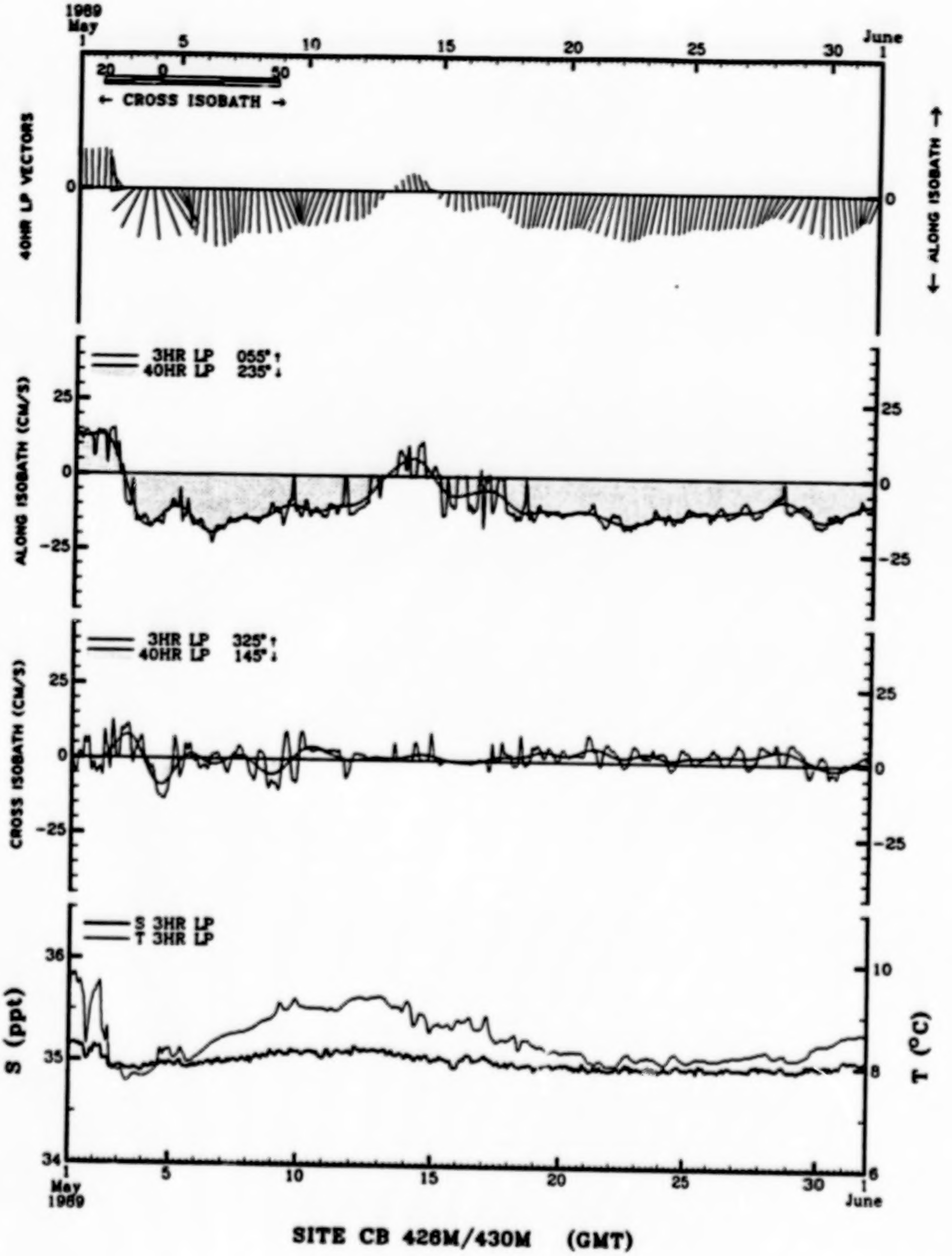

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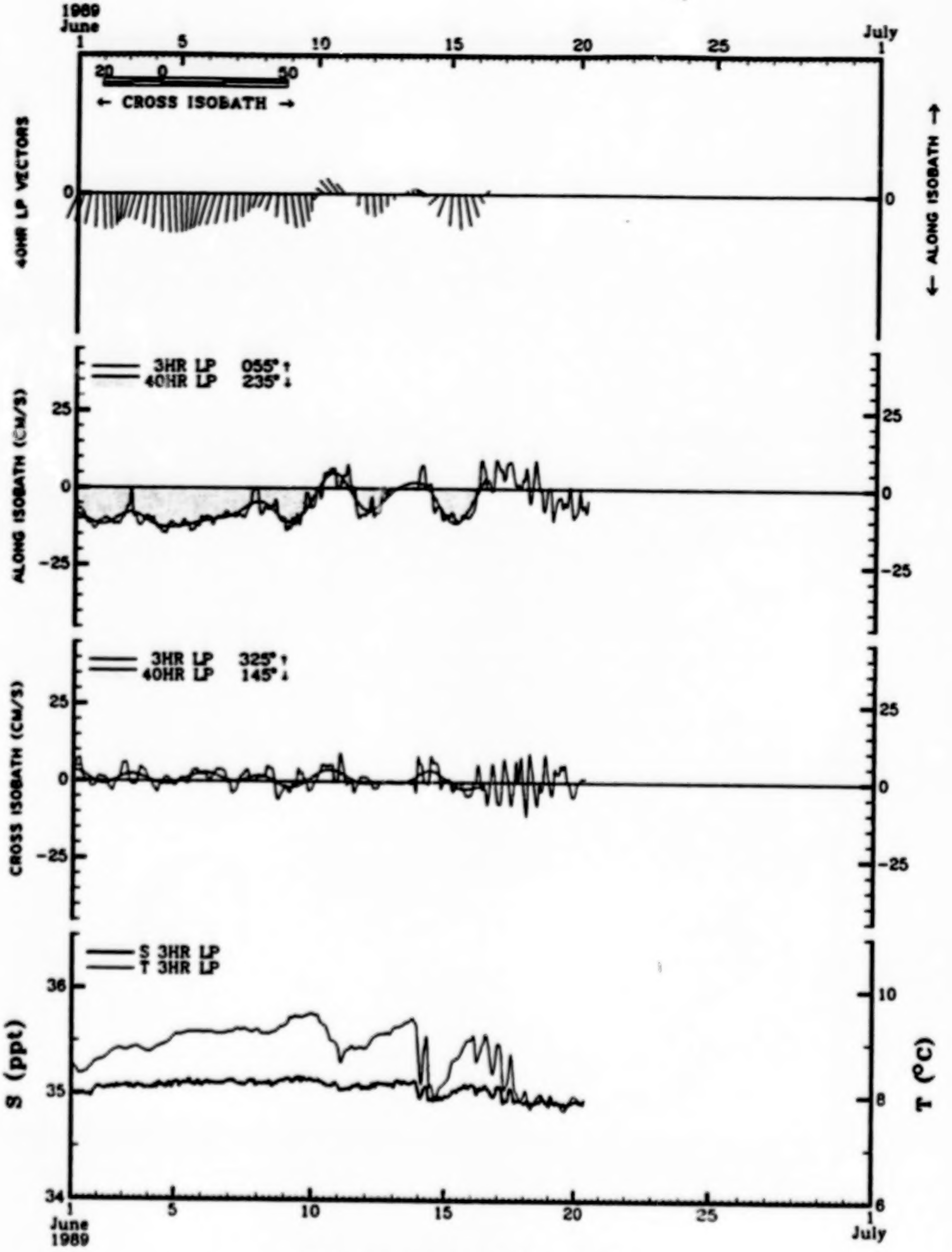

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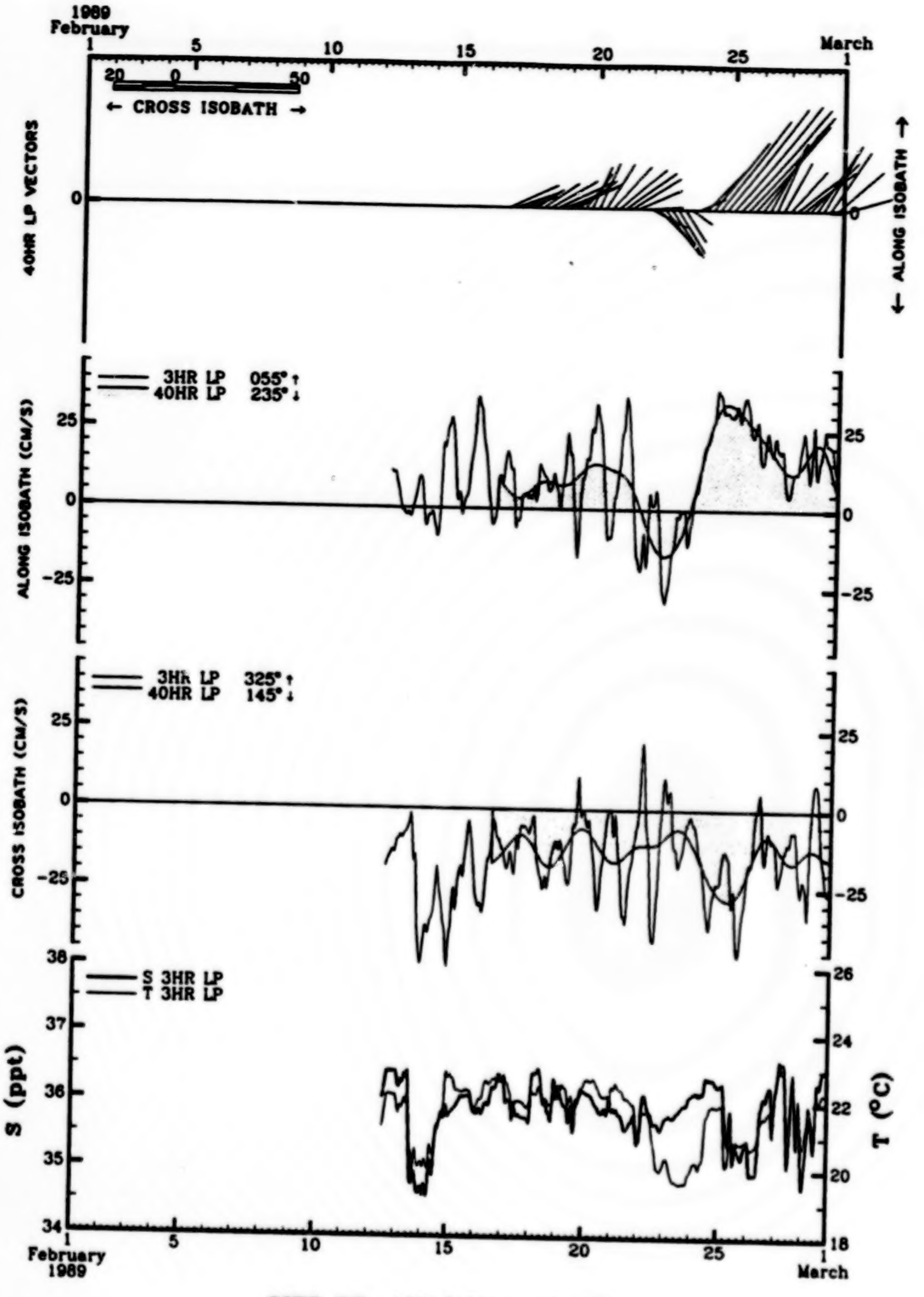
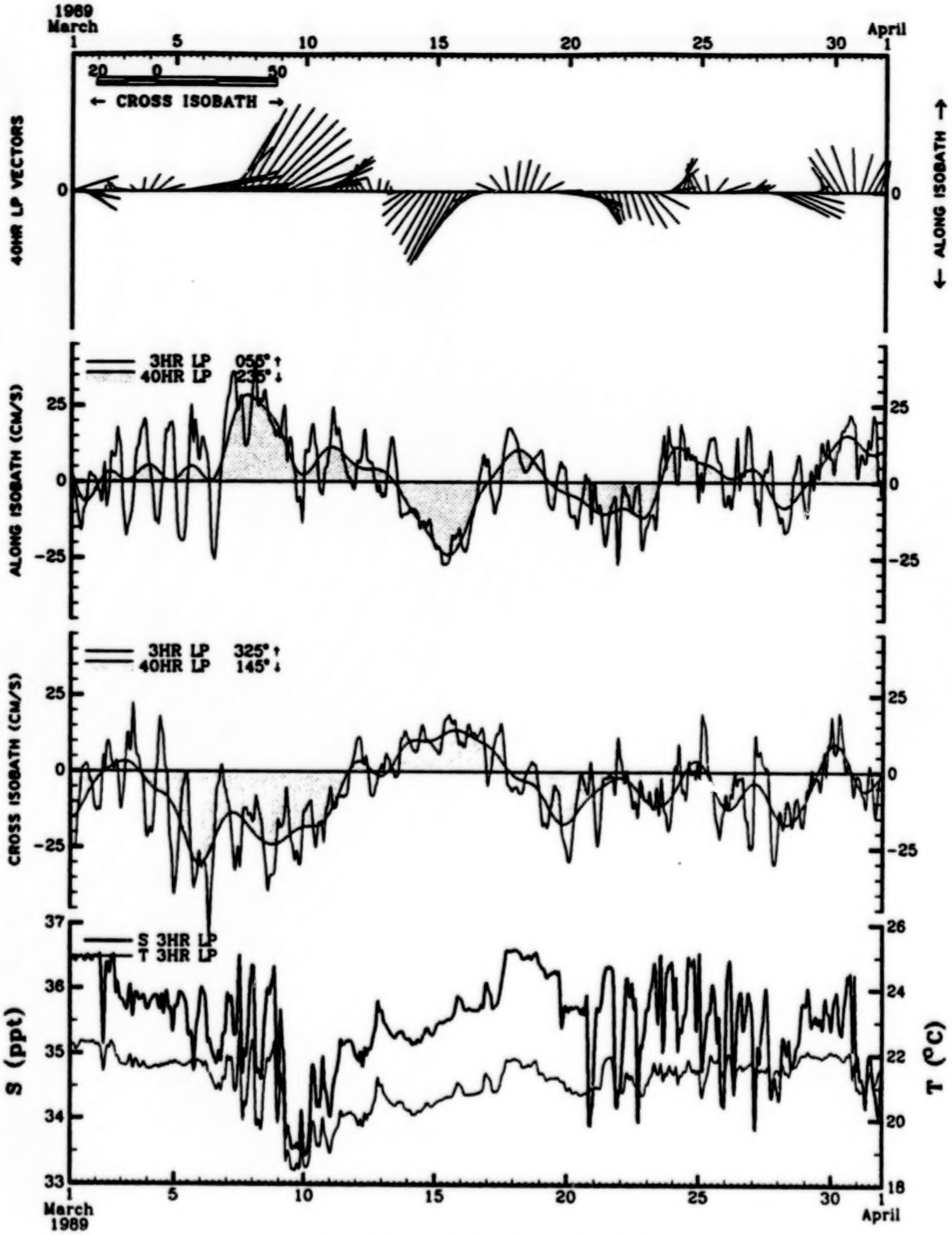


SITE DT 10M/60M (GMT)

3V4



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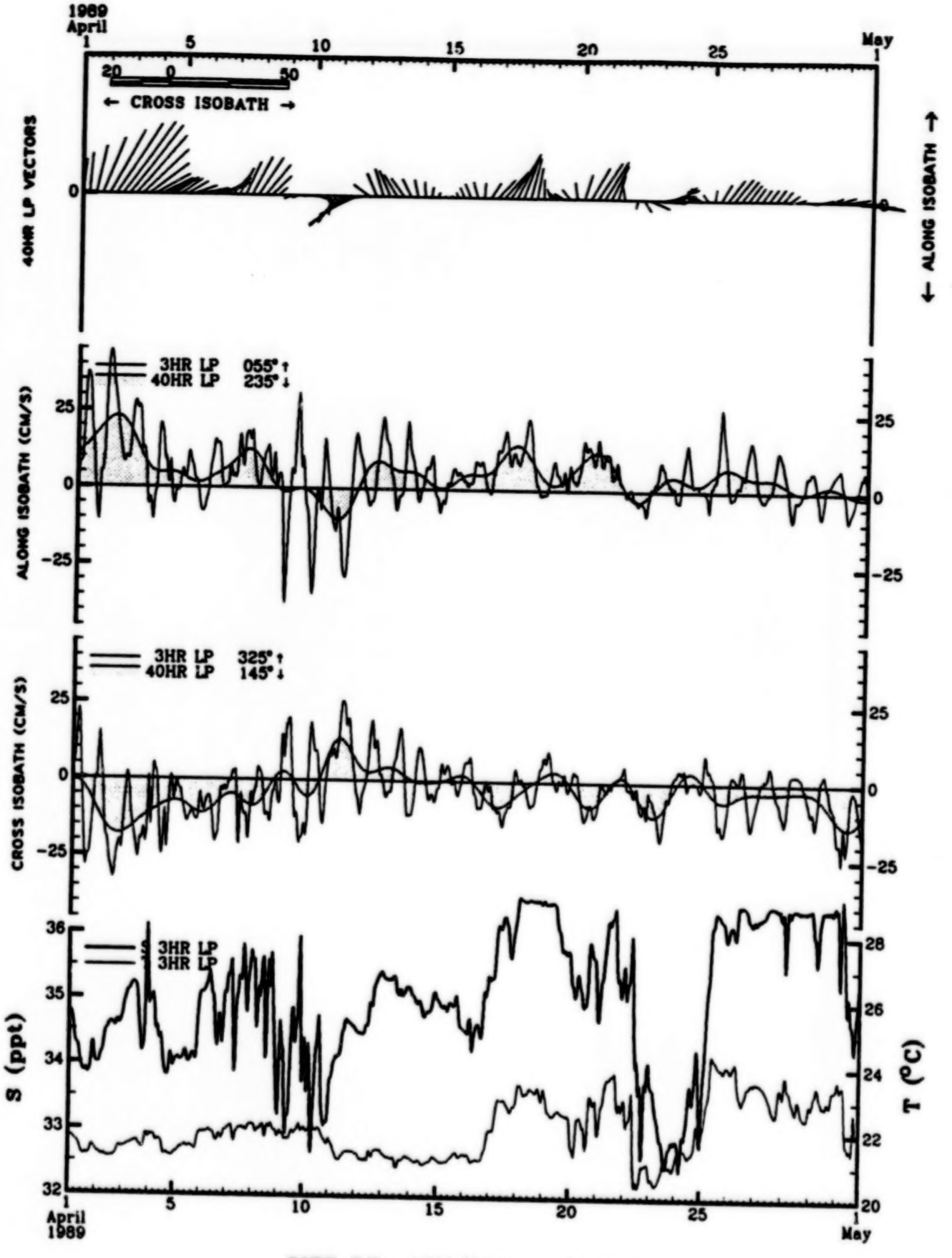

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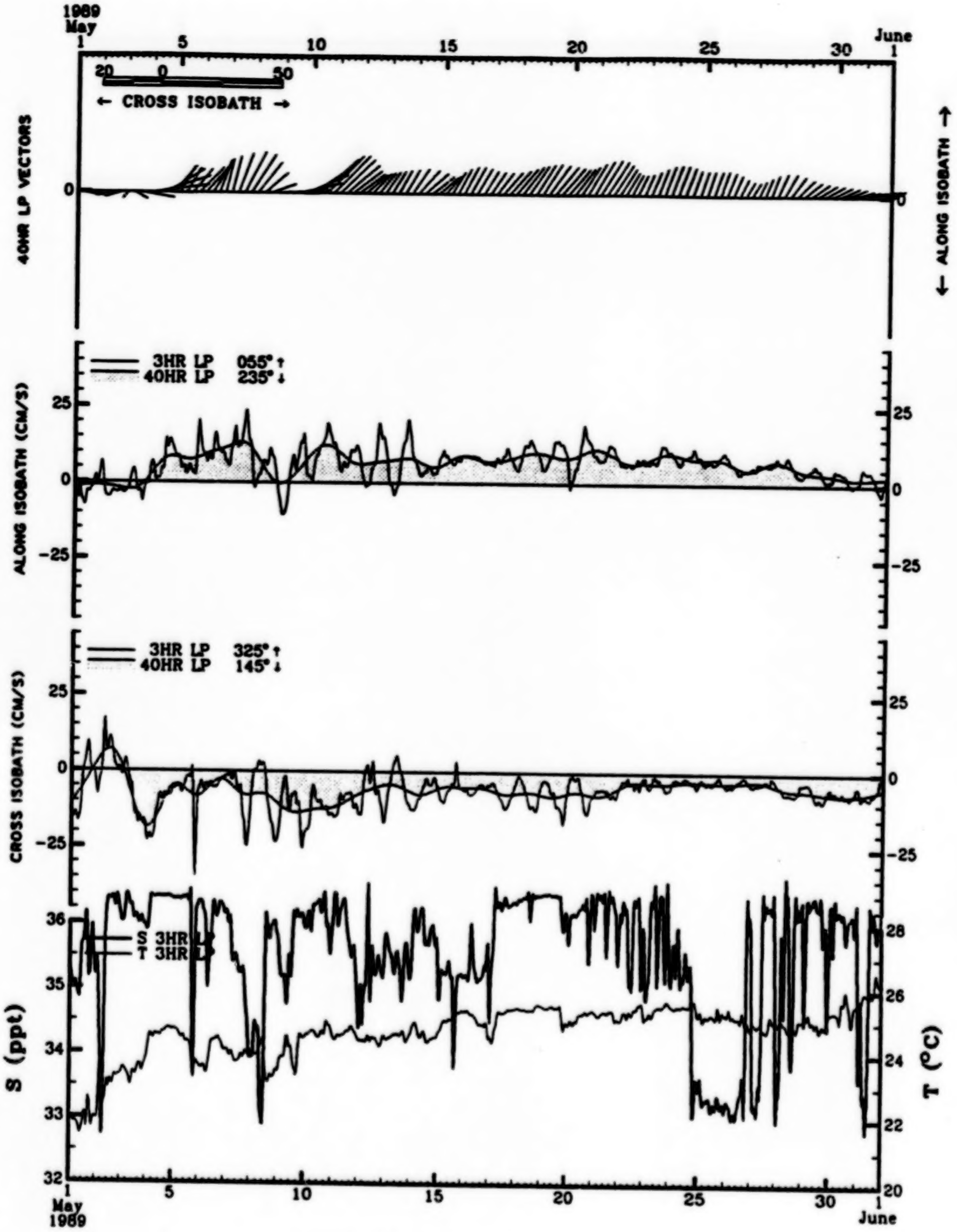

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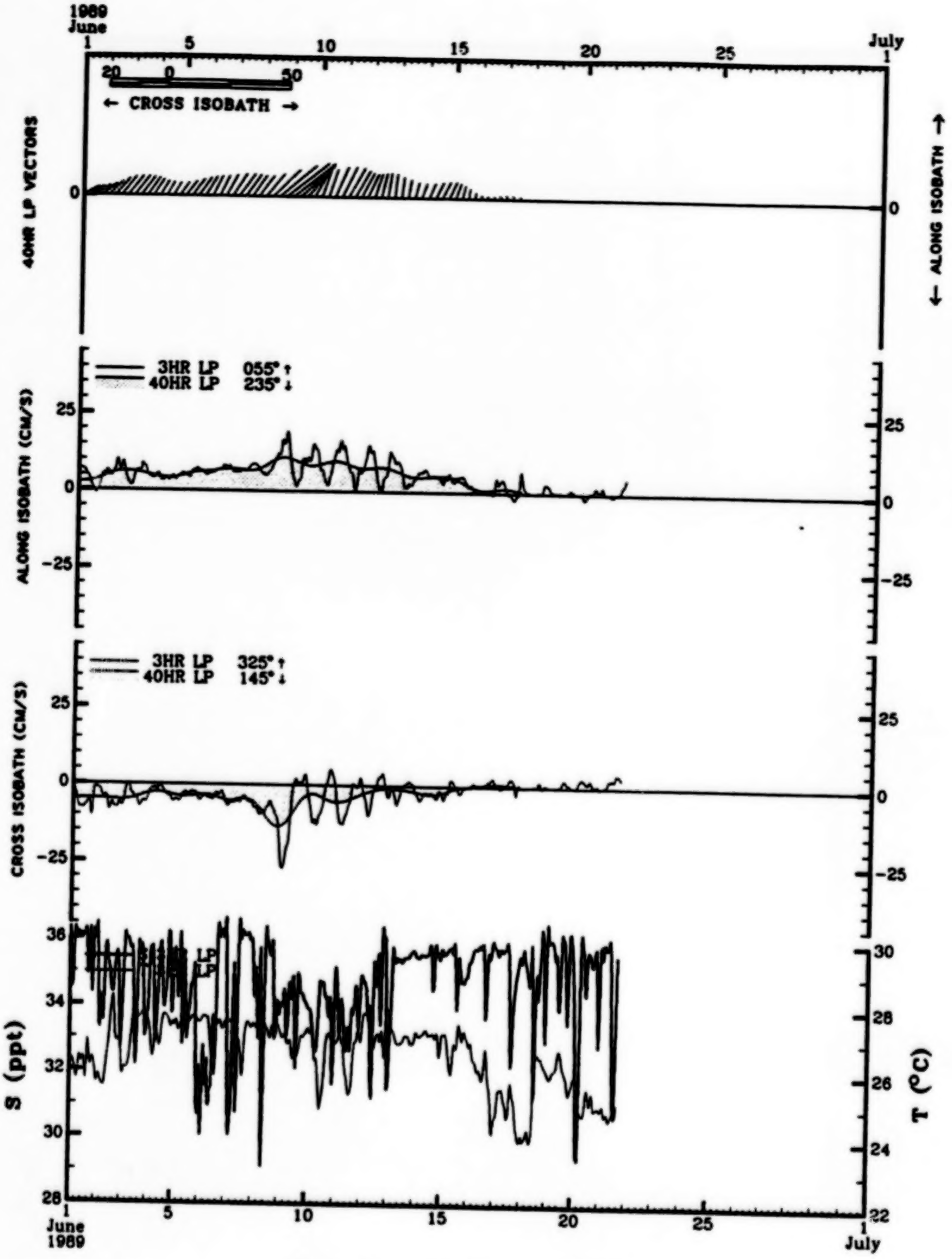

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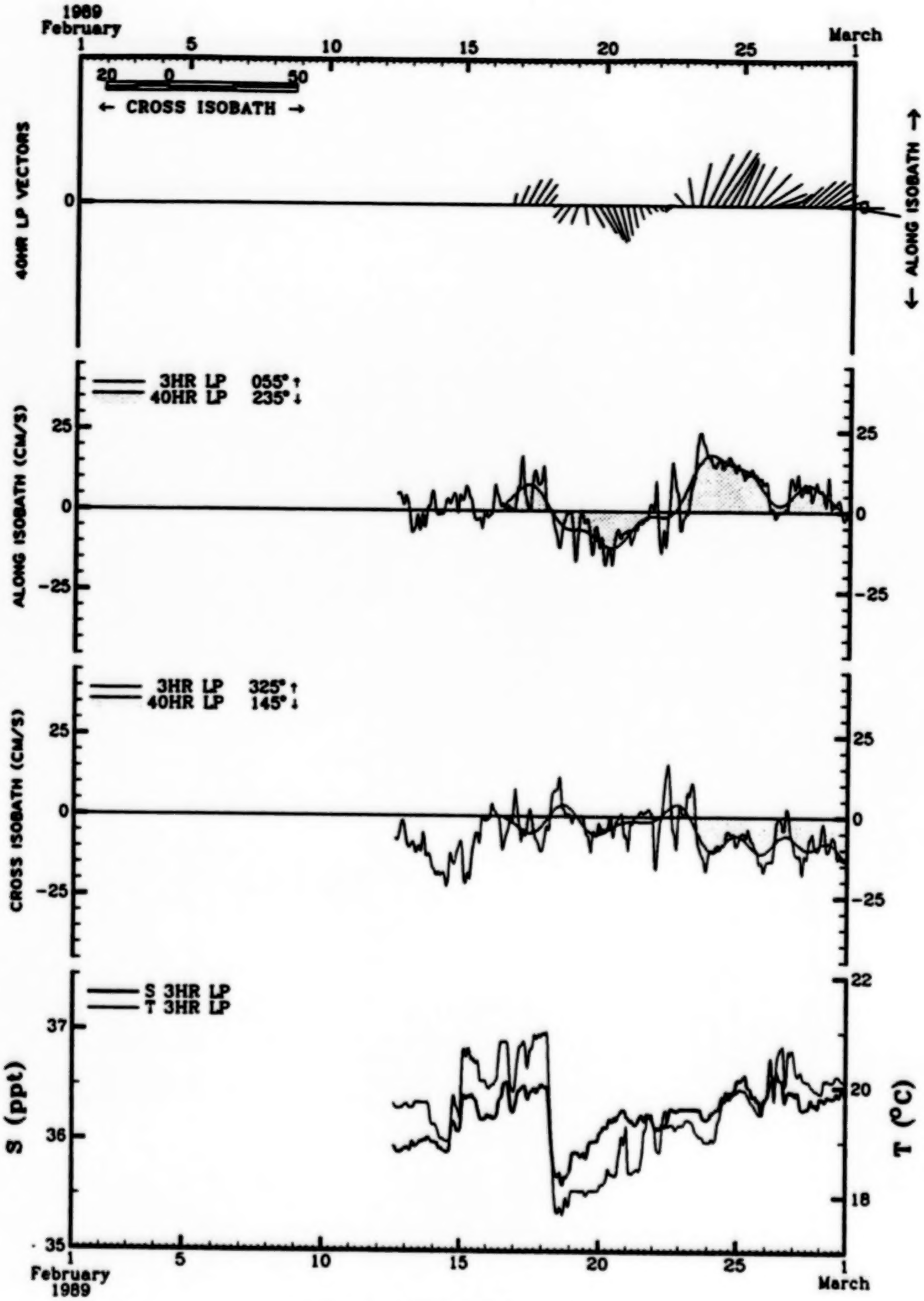

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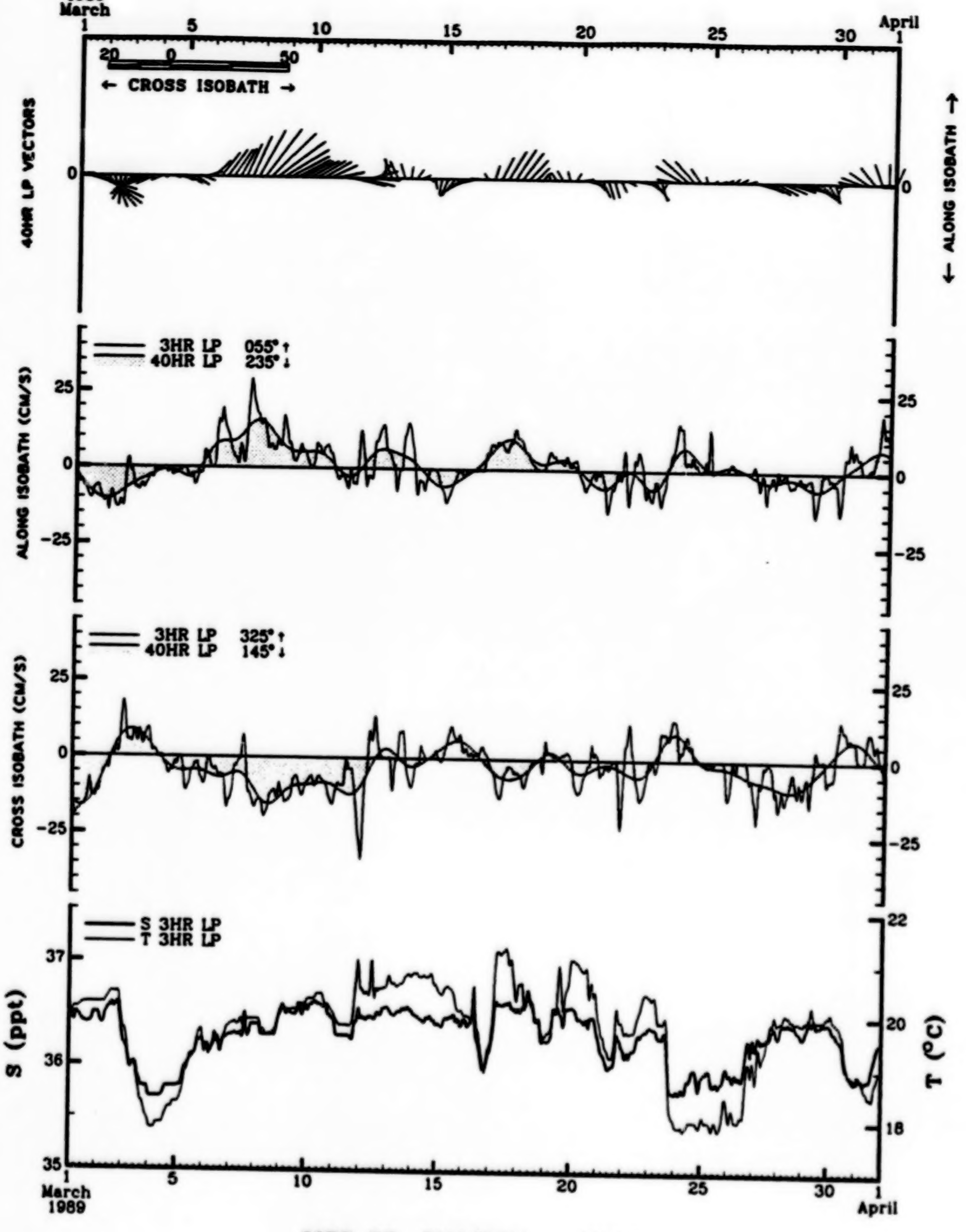

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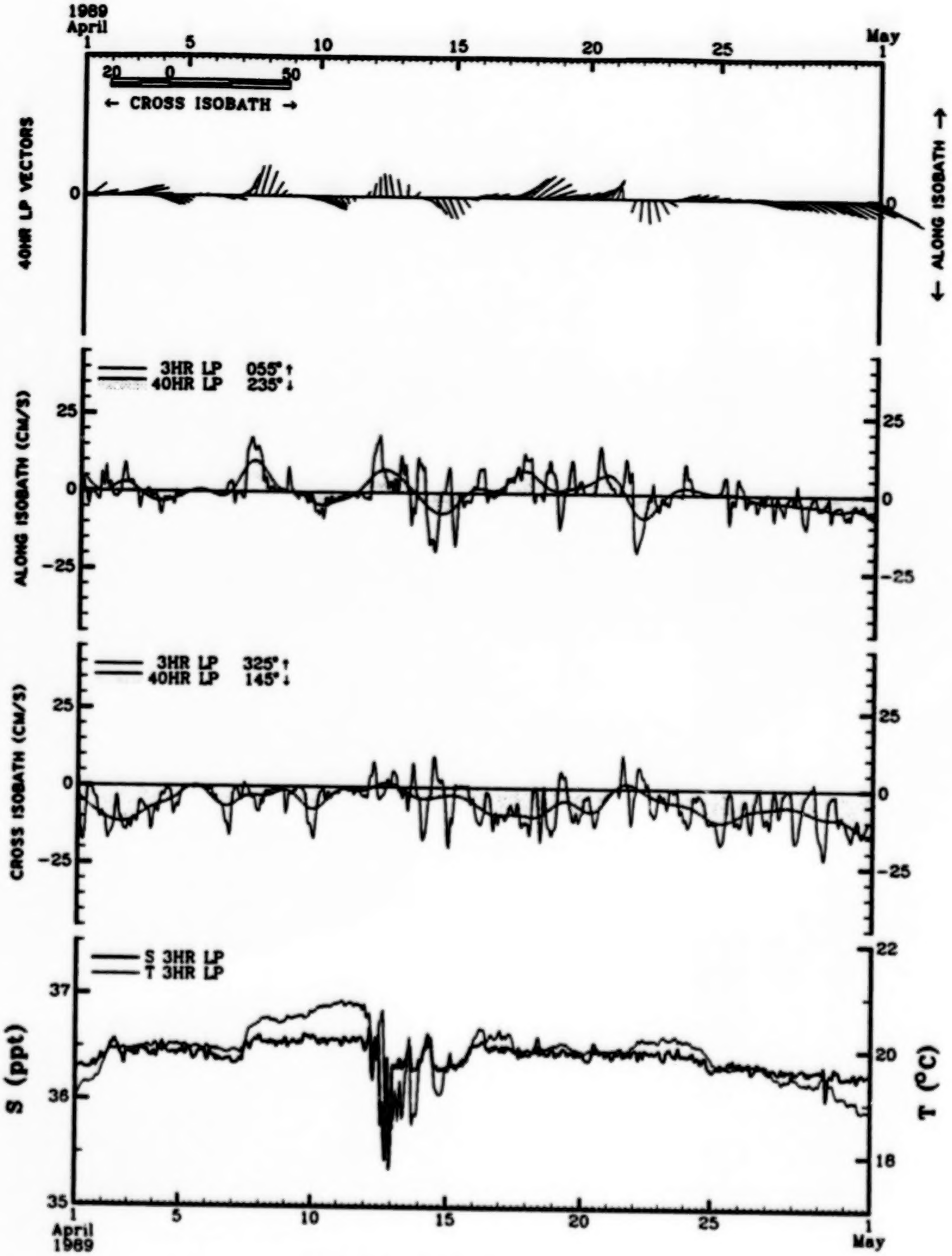

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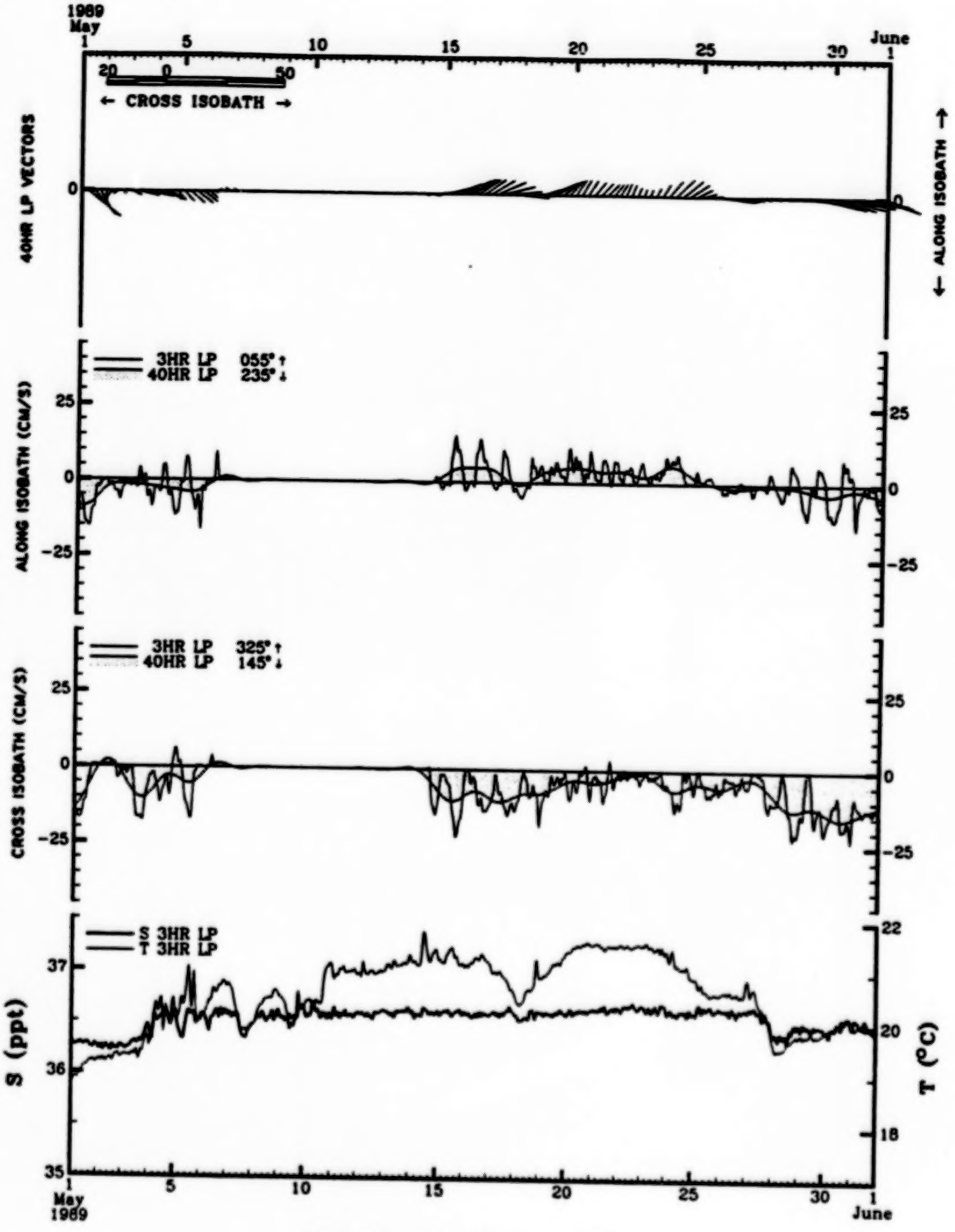

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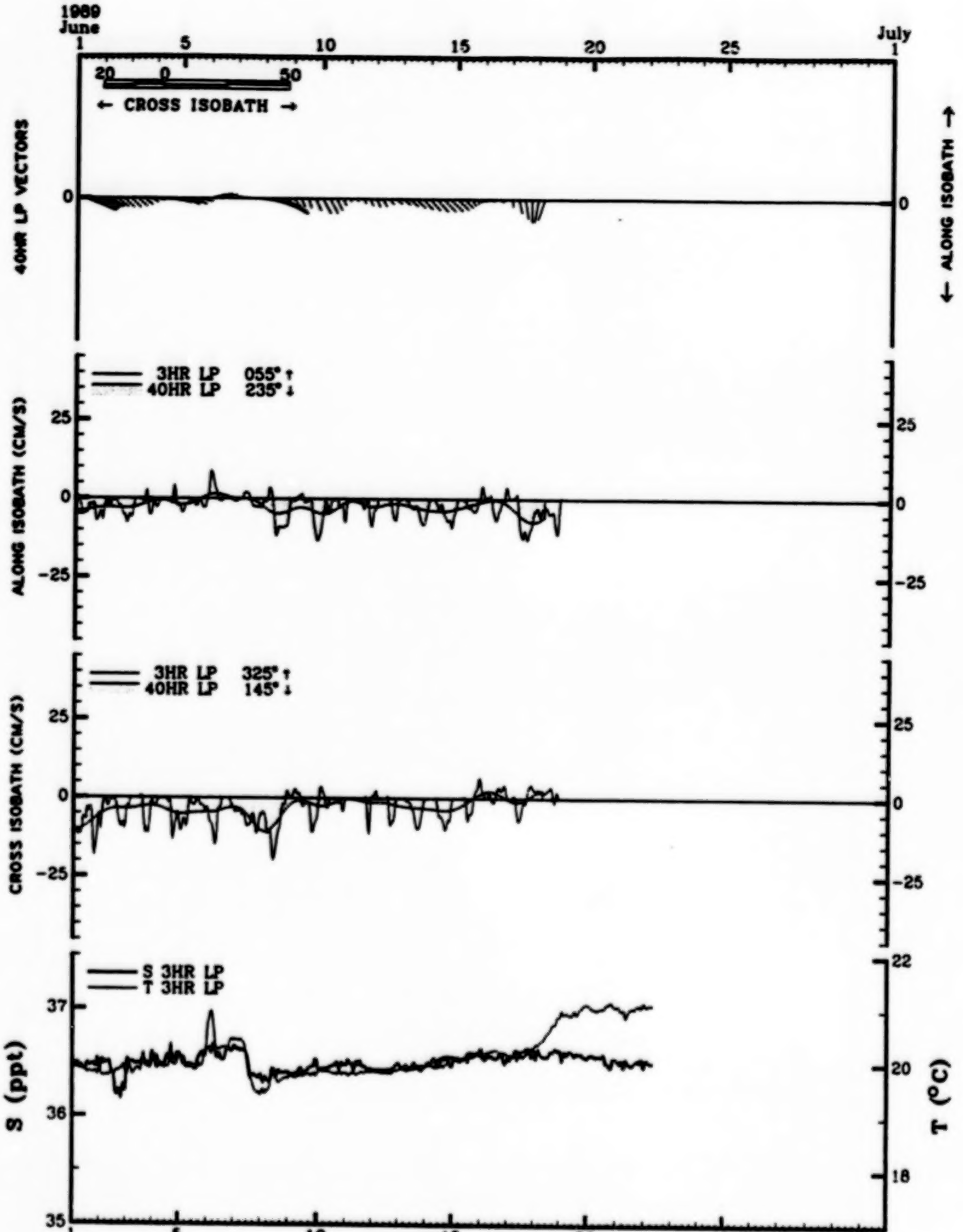

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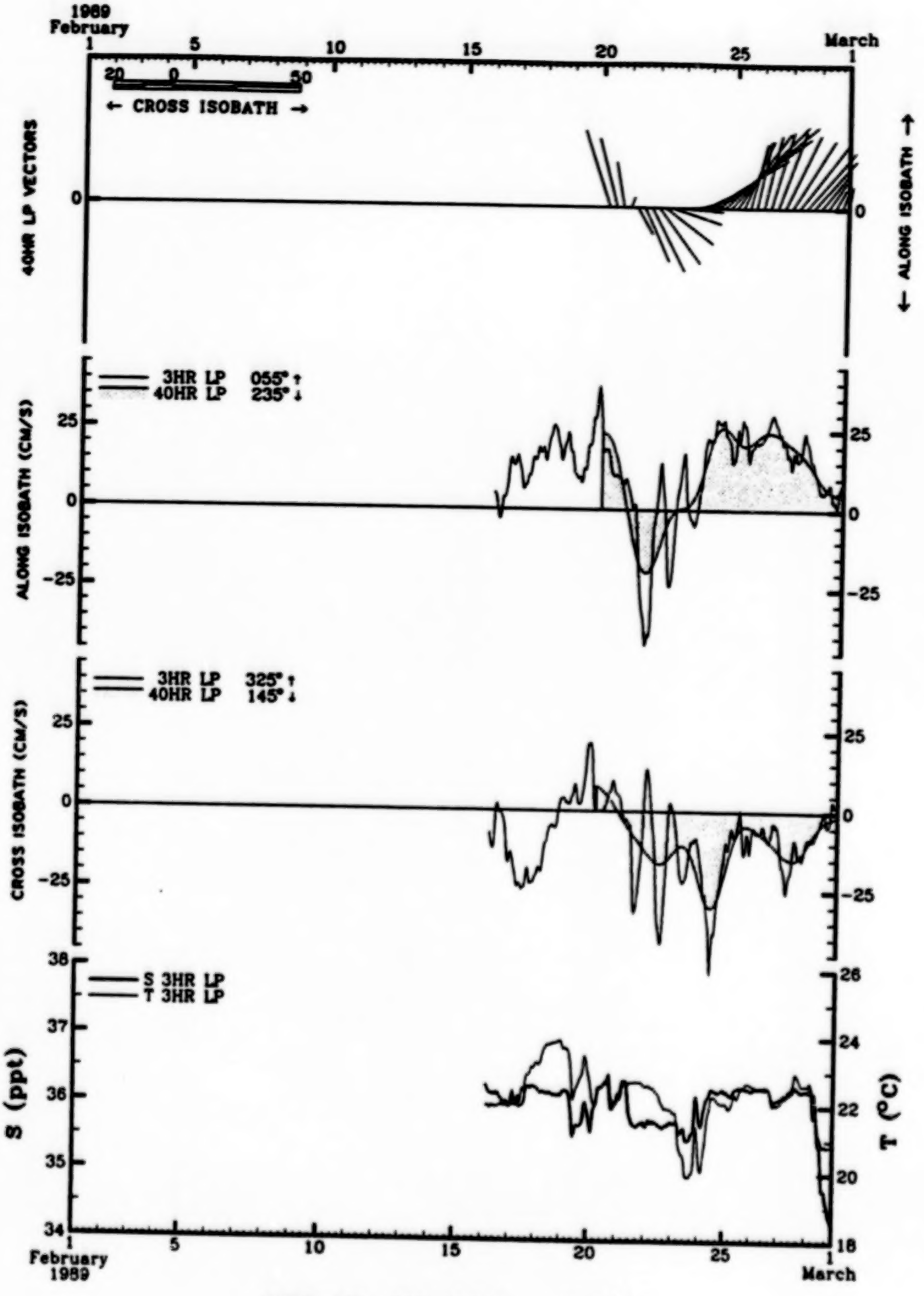

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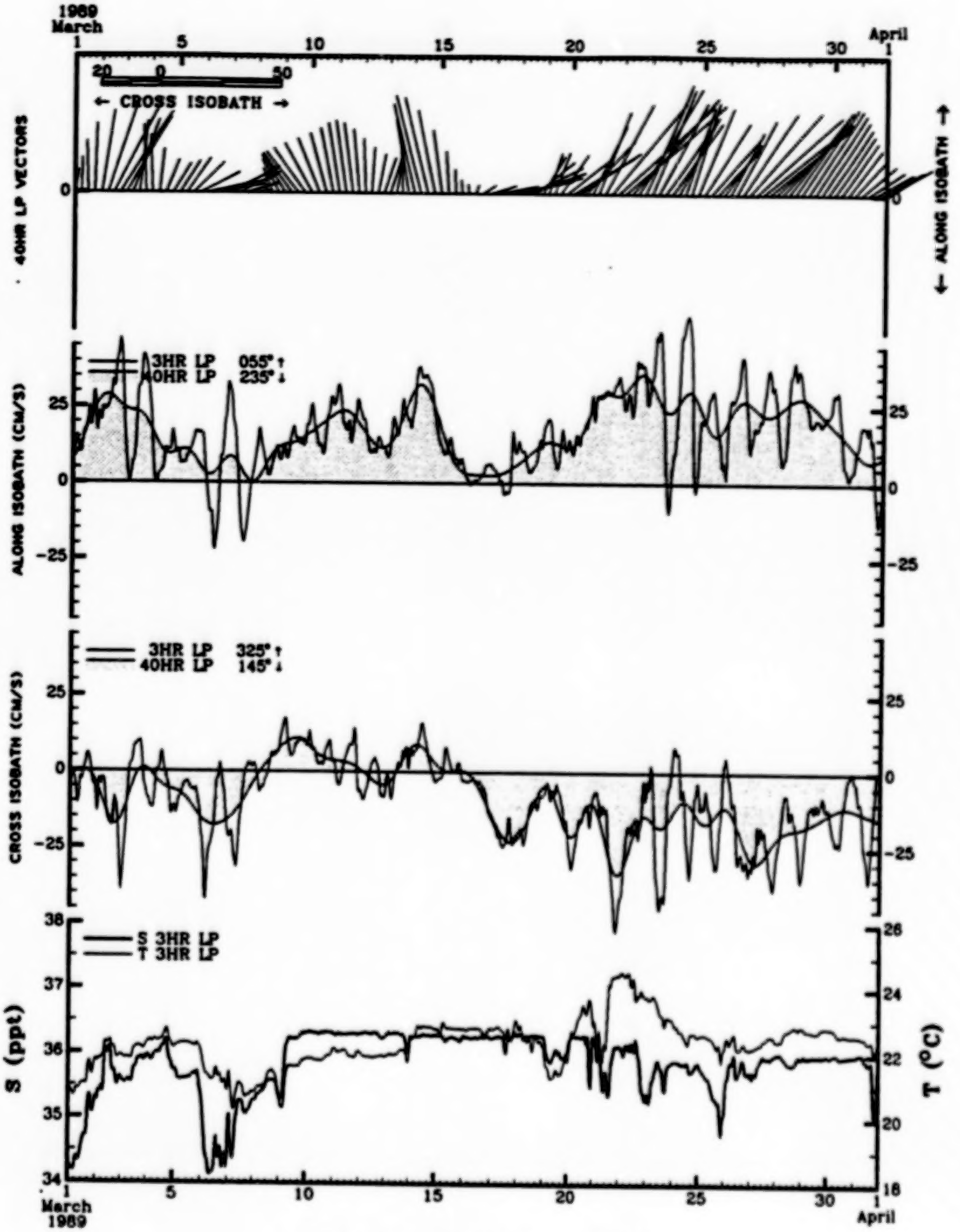

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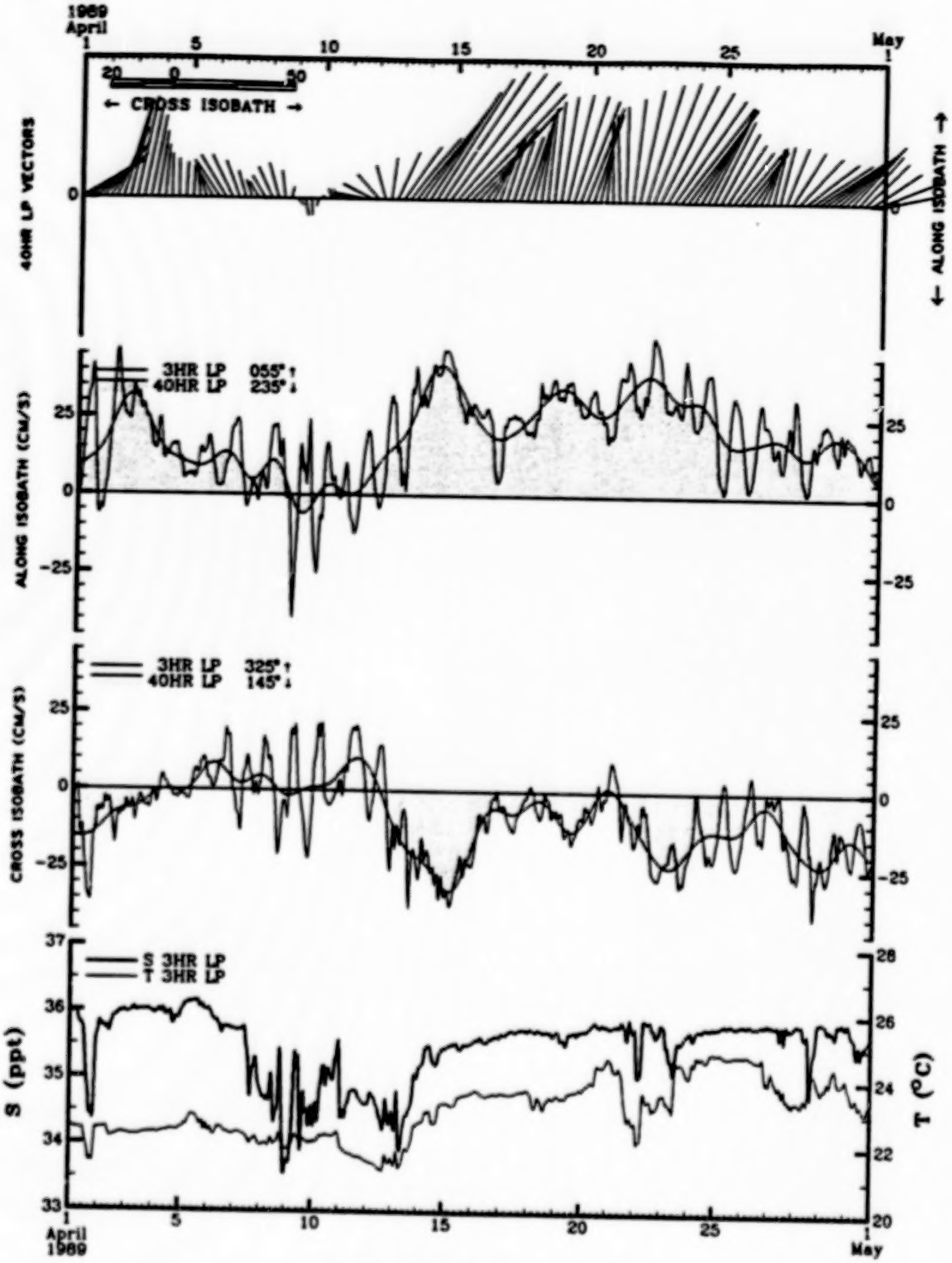

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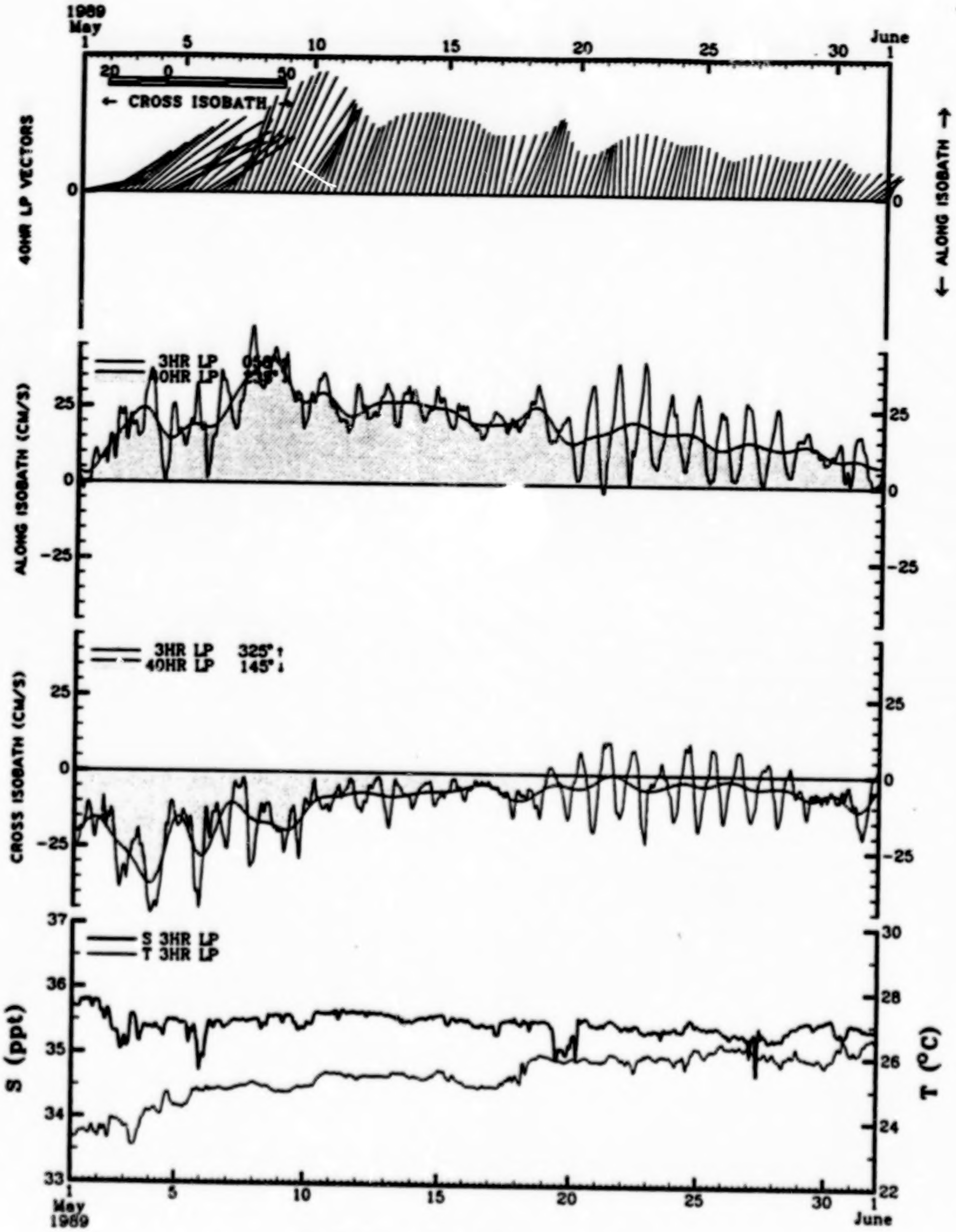
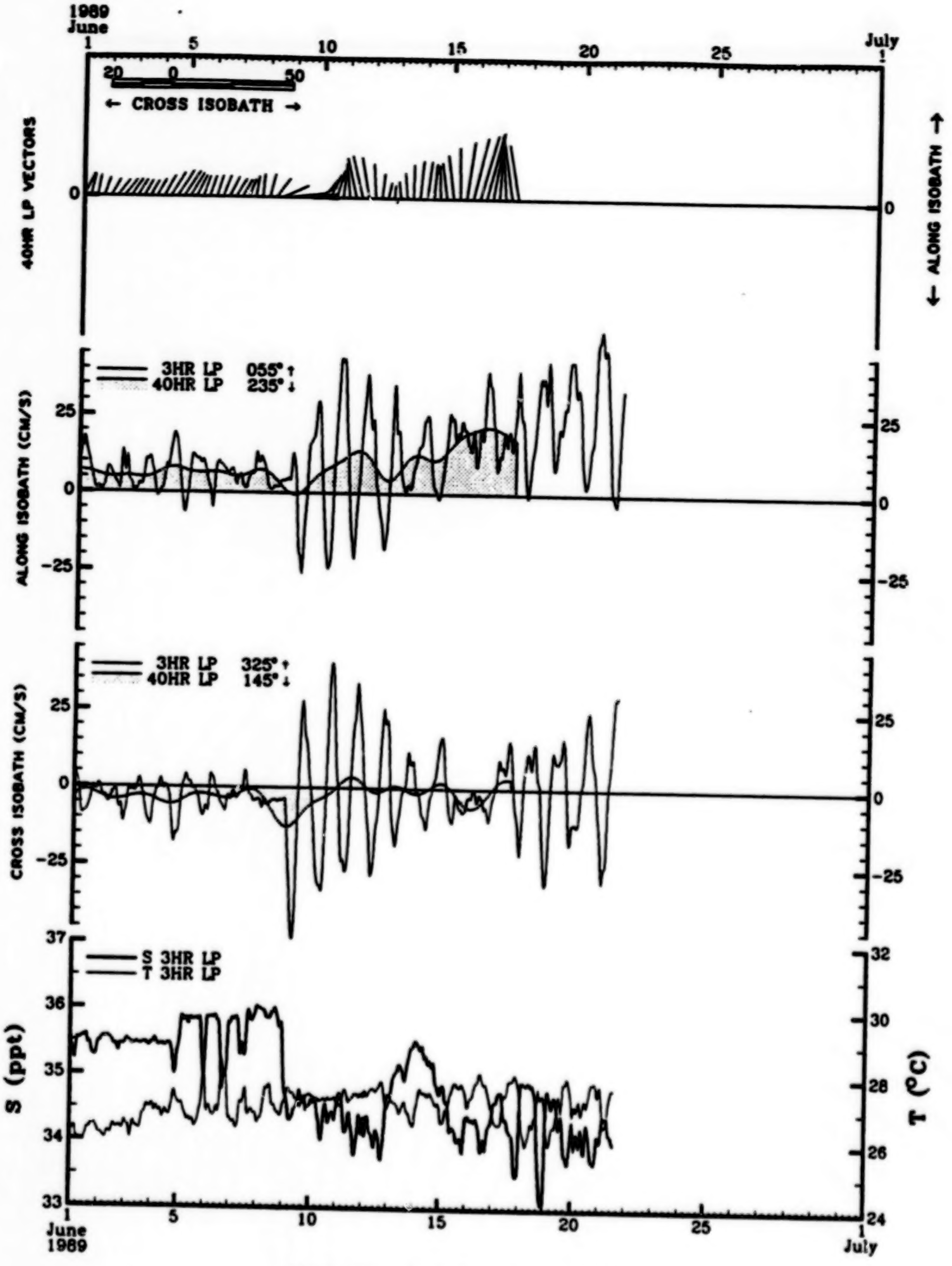


SITE ET 20M/430M (GMT)

307



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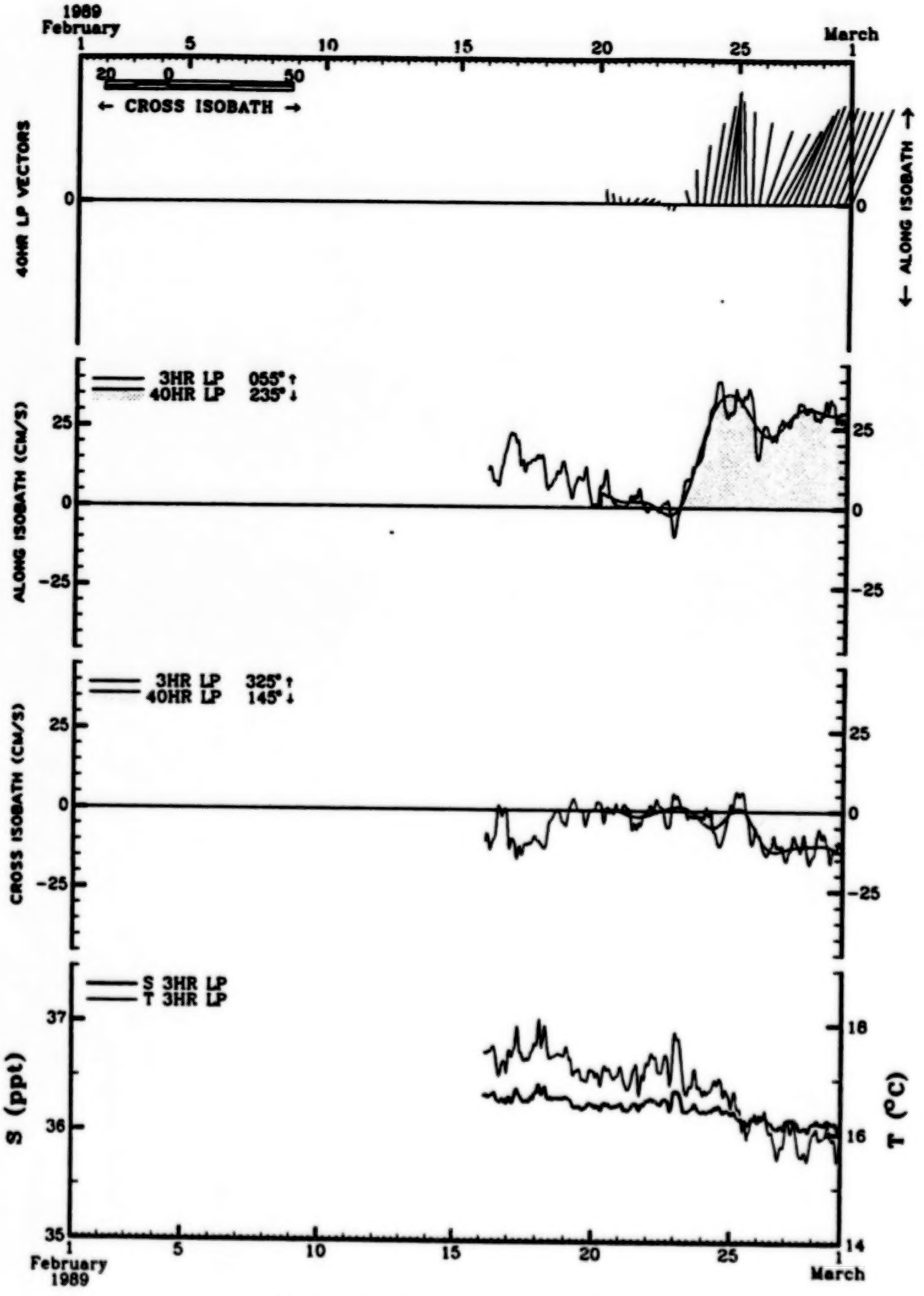
308



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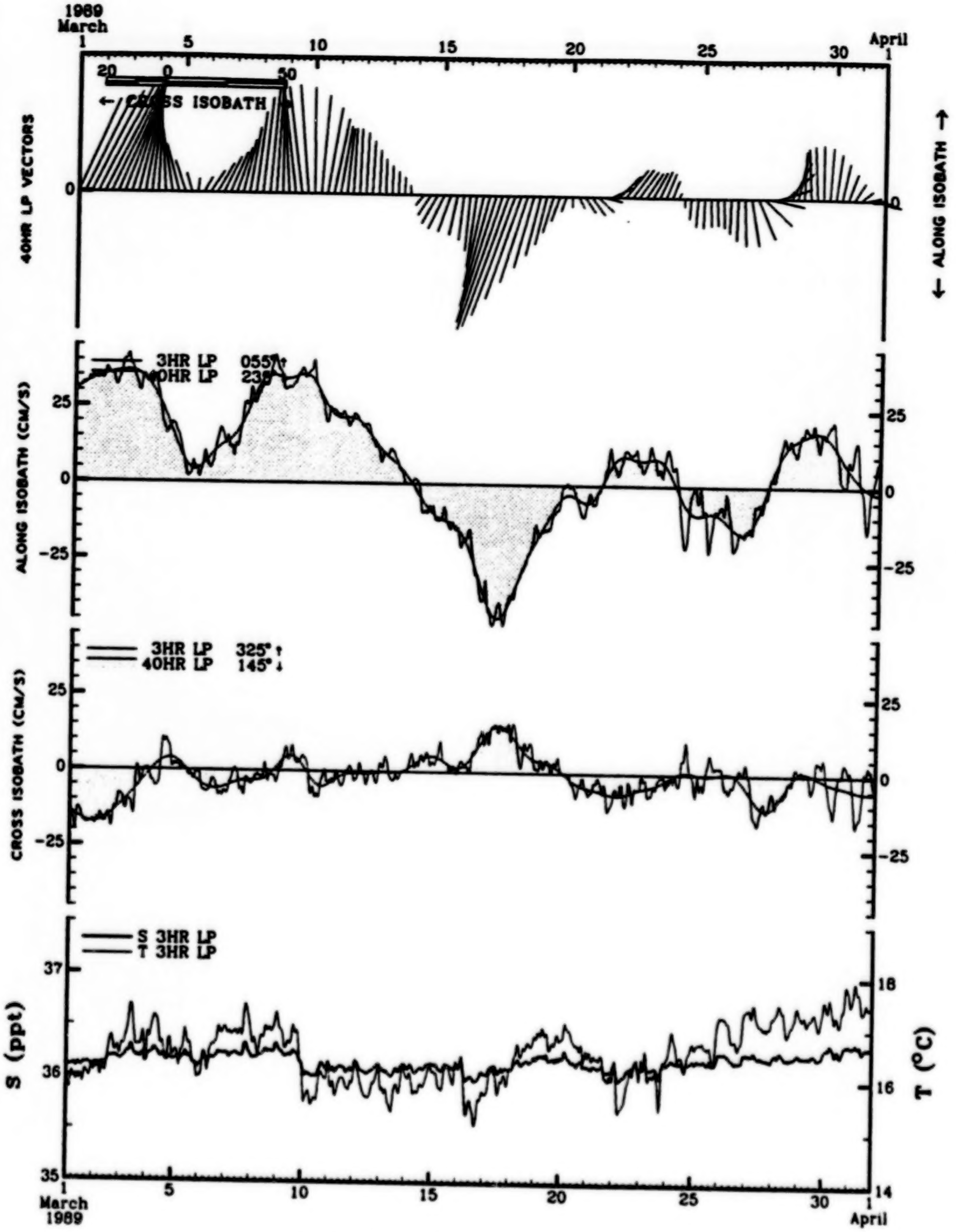

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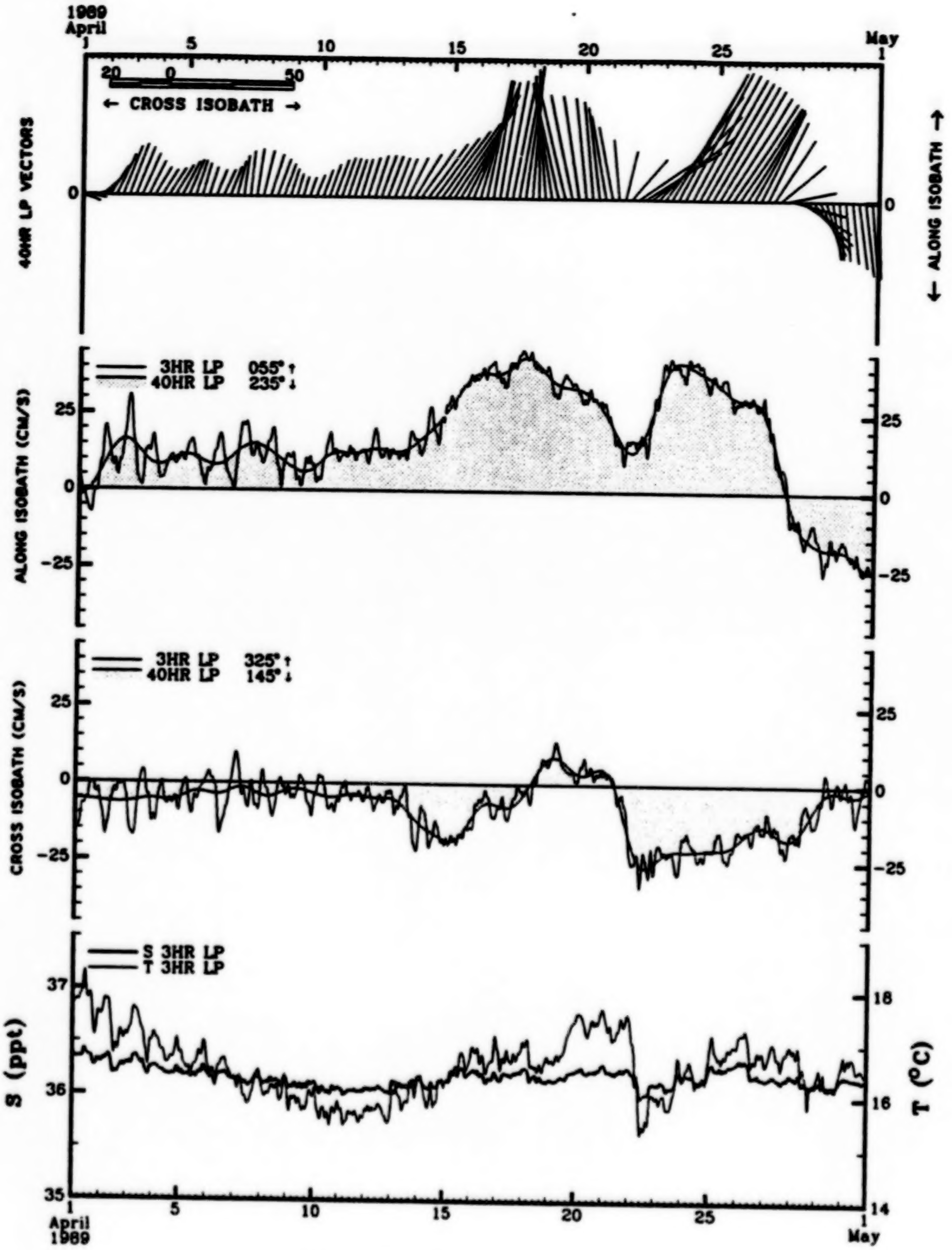

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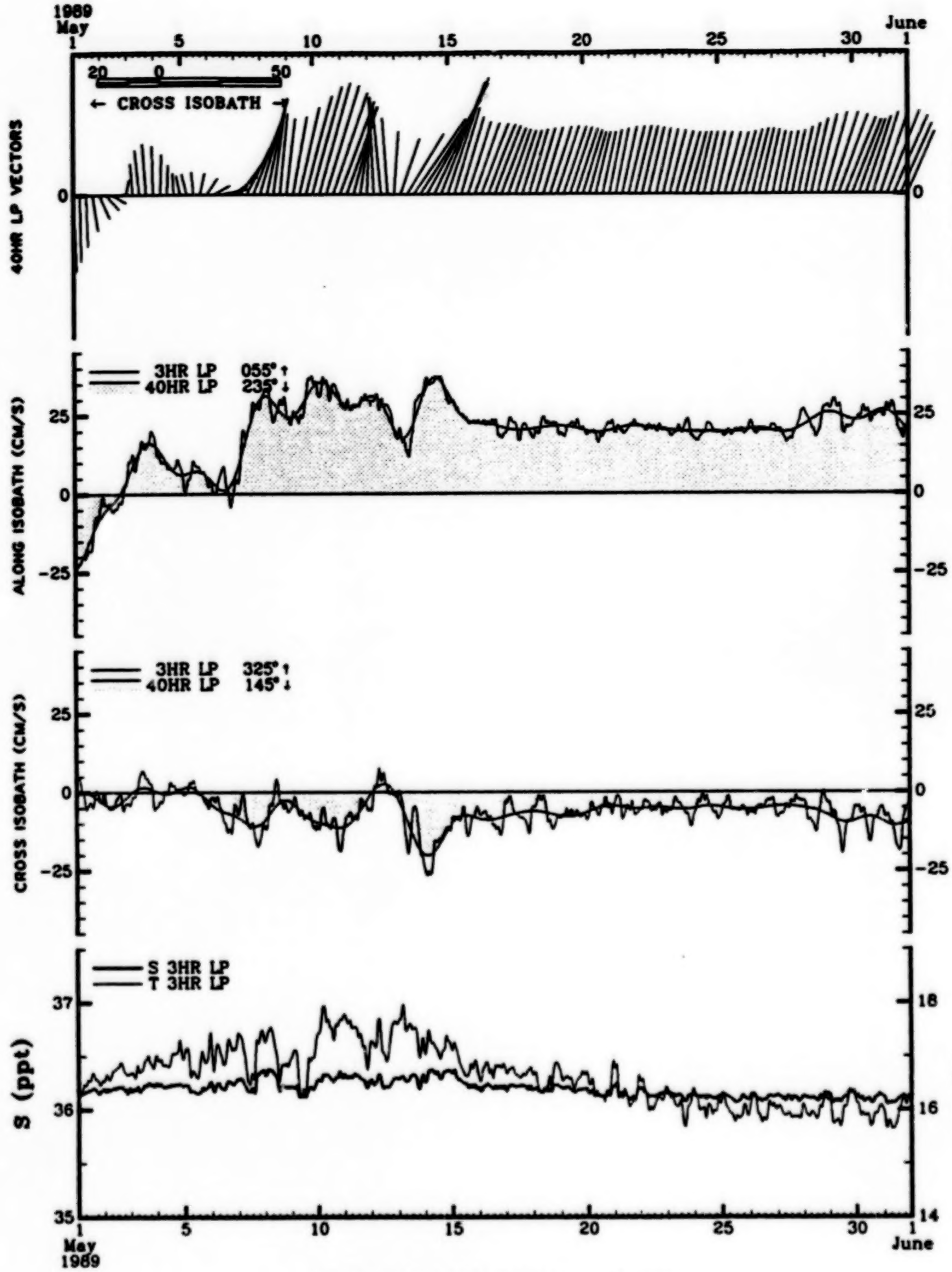

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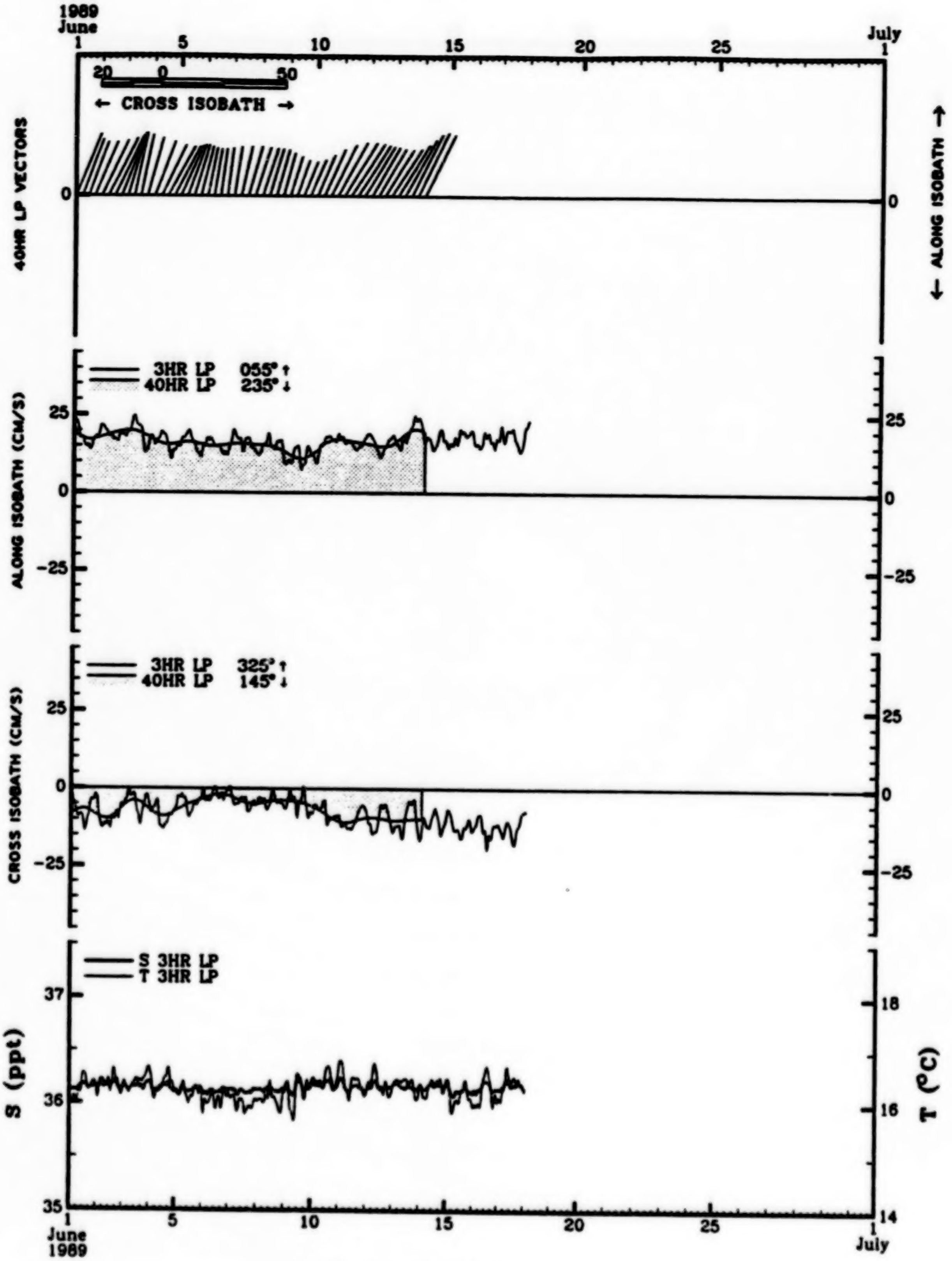
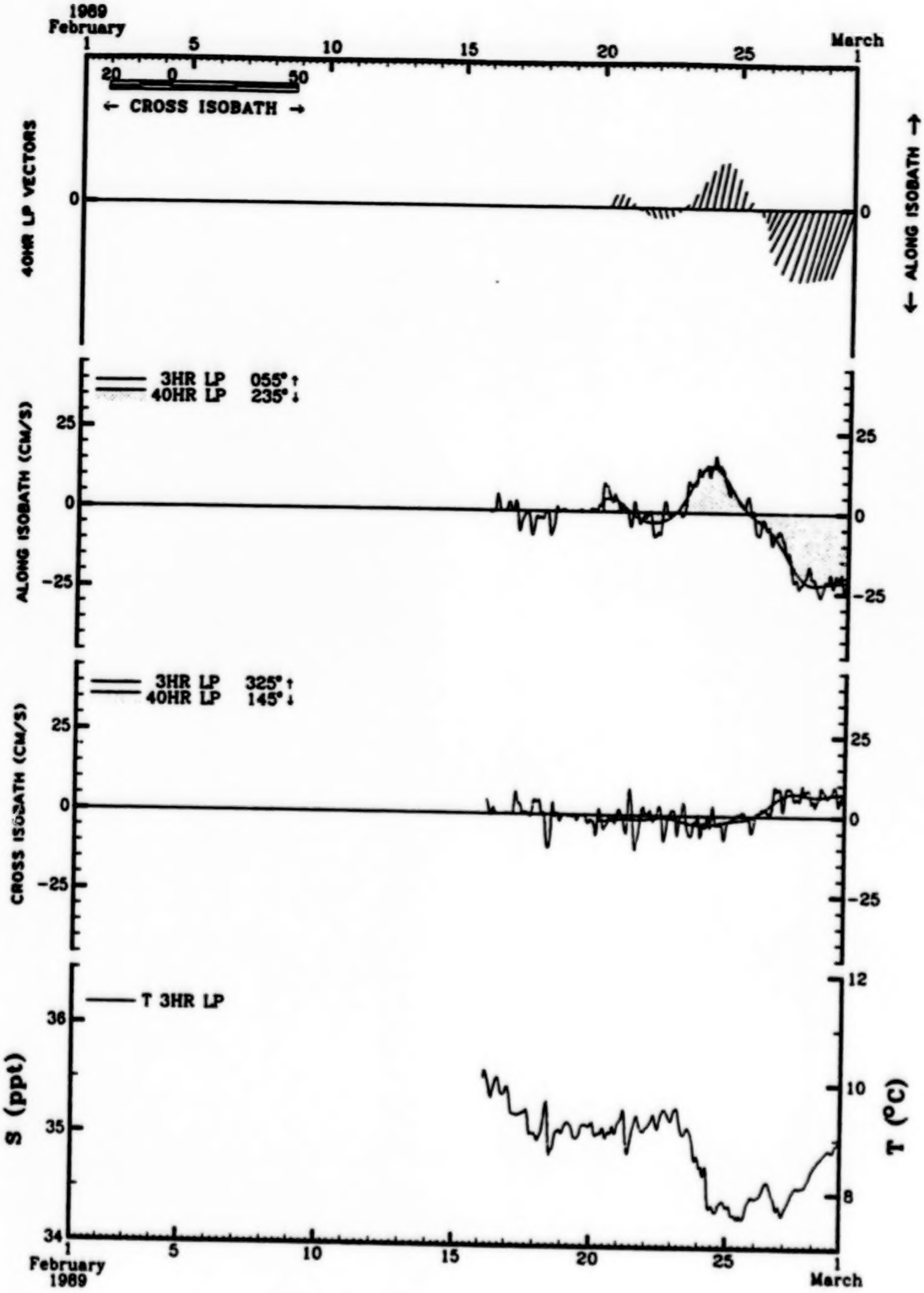


SITE EM 150M/430M (GMT)

069



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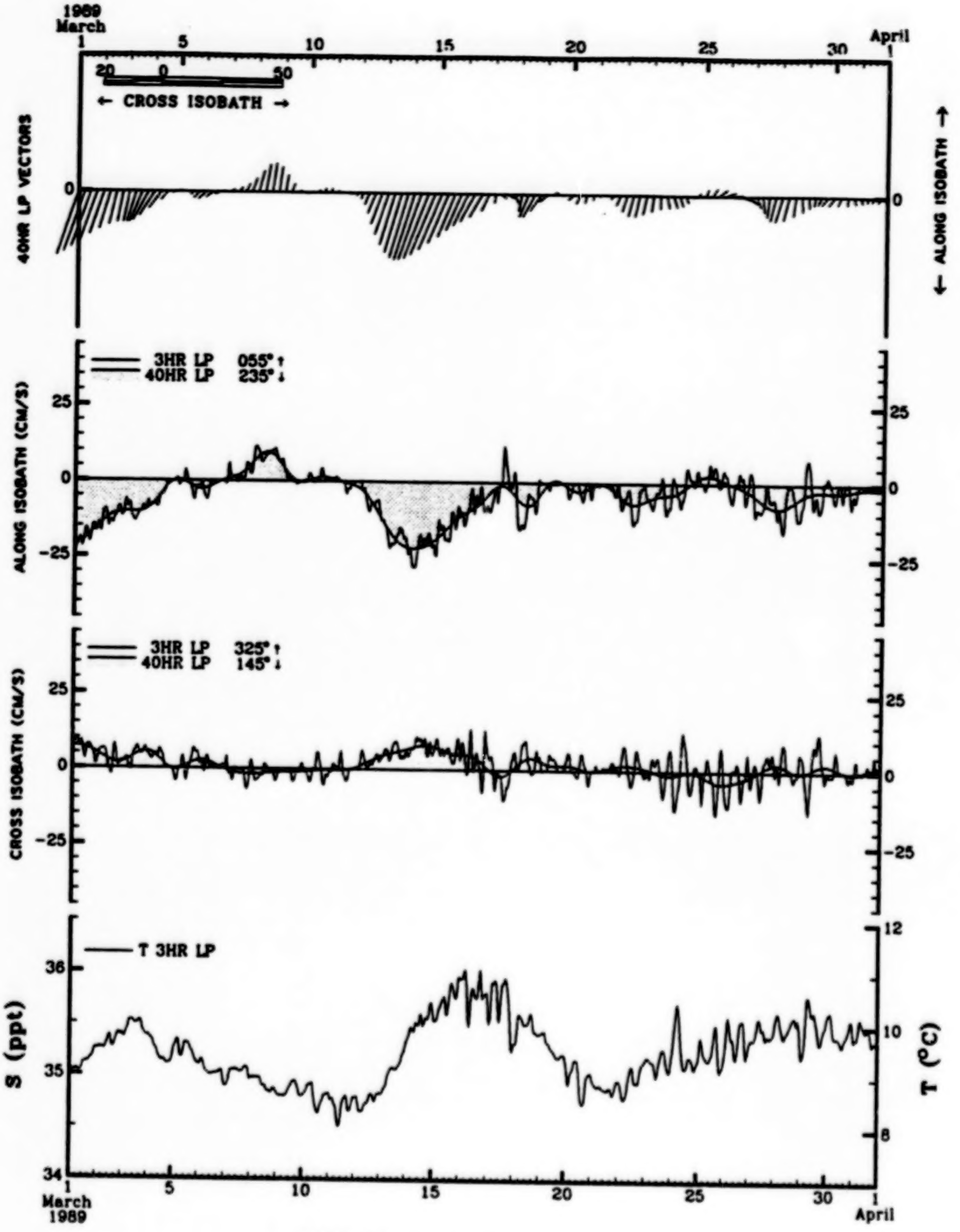

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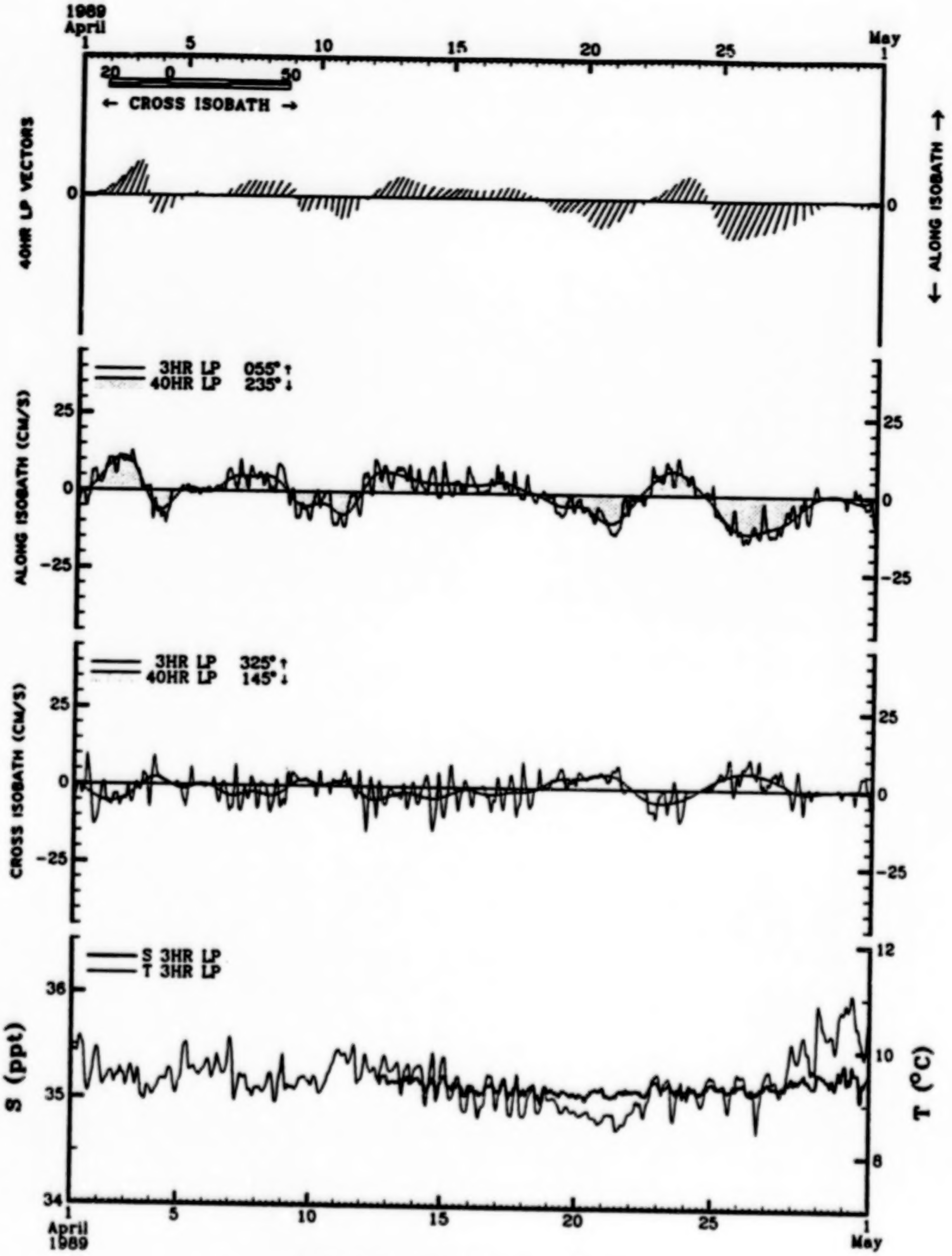

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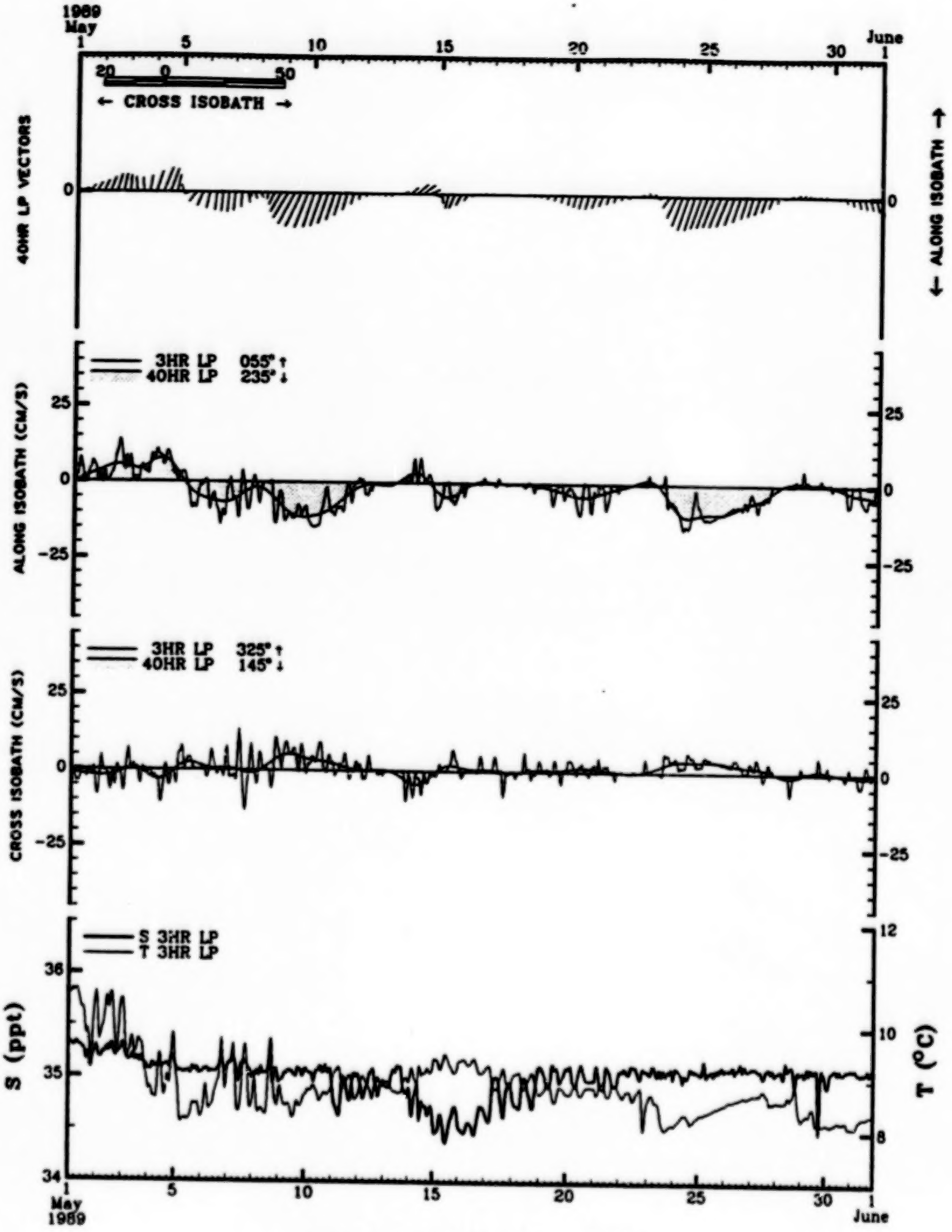

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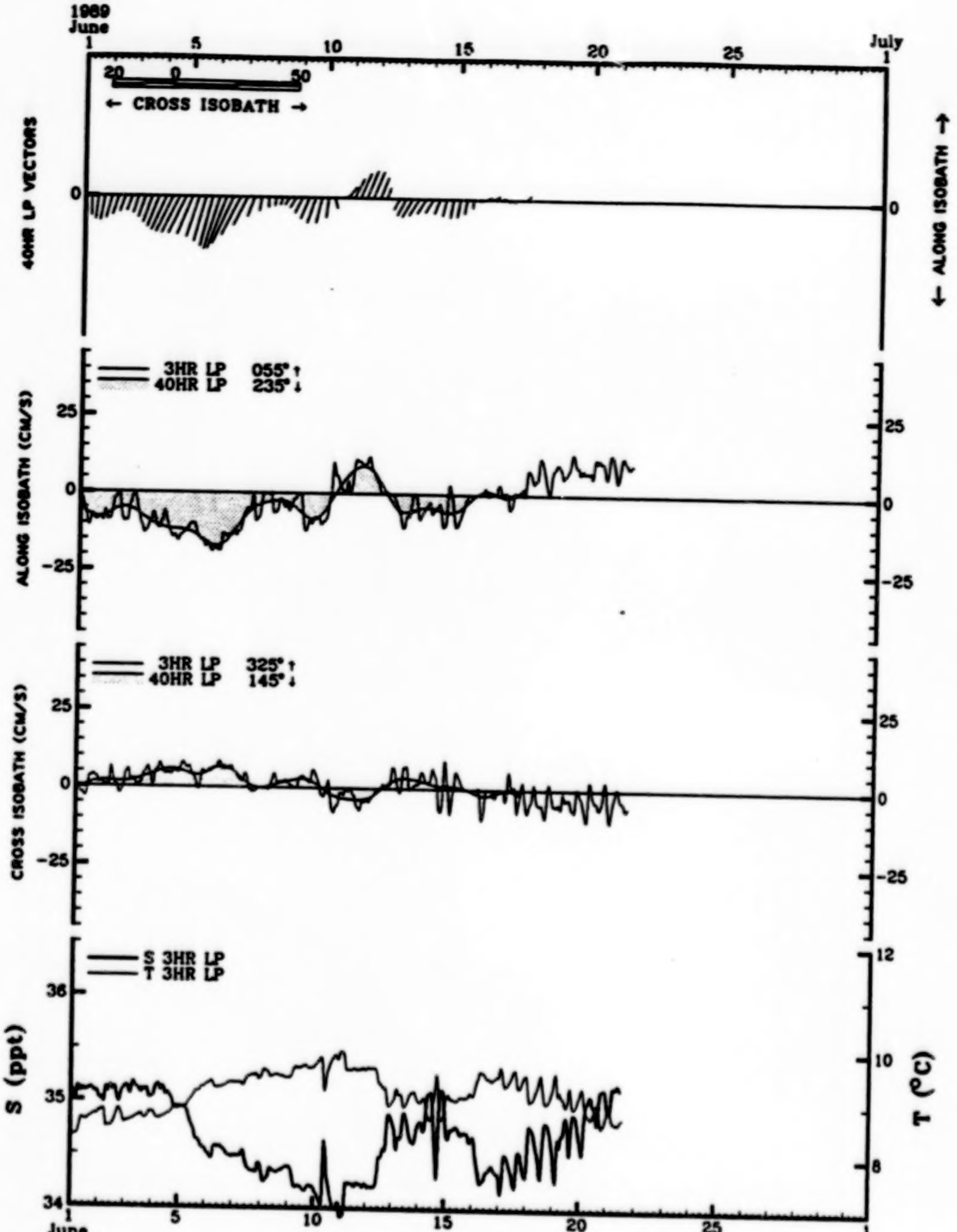

SITE EB 426M/430M (GMT)

398

NUTRIENT AND HYDROGRAPHIC DATA

CRUISE 0
NUTRIENT & HYDROGRAPHIC DATA

STATION	DEPTH (m)	PO4	NO3	N02	SiO4	DIS. OXYGEN (mg/l)
C-1	3	0.13	1.32	0.13	2.66	6.314
	6	0.13	0.14	0.14	2.05	6.306
	10	0.14	0.19	0.14	1.53	6.111
	14	0.14	0.18	0.15	2.05	5.975
	18	0.29	0.06	0.69	3.19	5.182
C-2	4	0.19	1.47	0.40	4.50	6.114
	5	0.18	1.44	0.39	4.50	6.164
	10	0.23	2.59	1.04	4.61	5.415
	15	0.21	2.06	0.78	3.30	5.040
	21	0.19	1.80	0.67	2.99	4.914
	29	0.20	1.52	0.57	2.77	4.775
	39	0.29	3.67	0.26	3.51	4.335
	47	0.36	5.14	0.21	3.54	3.977
C-3	3	0.10	0.47	0.27	1.50	6.005
	10	0.17	2.01	0.43	2.93	5.901
	20	0.18	1.81	0.50	2.73	4.870
	30	0.19	2.45	0.45	2.93	4.836
	40	0.27	4.70	0.26	3.58	4.629
	50	0.46	7.43	0.16	4.85	4.191
	60	0.54	9.85	0.17	4.39	3.613
	70	0.63	11.70	0.17	4.89	3.267
	80	0.71	12.80	0.19	5.27	3.062
	90	0.88	14.50	0.22	6.55	3.055
	105	0.94	15.10	0.25	7.24	3.096
	117	0.14	0.43	0.31	1.69	3.108
C-4	20	0.20	1.59	0.59	2.86	4.945
	30	0.20	1.55	0.49	2.64	4.842
	40	0.11	0.68	0.62	2.06	4.880
	60	0.15	0.74	0.59	2.17	4.867
	80	0.50	8.09	0.20	4.16	3.328
	100	0.67	10.80	0.19	4.78	3.111
	125	0.76	12.40	0.18	5.43	3.103
	150	0.84	13.50	0.18	5.83	3.137
	175	0.99	15.10	0.25	7.13	3.075
	195	1.15	16.60	0.28	8.33	2.990

STATION	DEPTH (m)	PO4	NO3	N02	SIO4	DIS. OXYGEN (mg/l)
M1	4	0.18	0.29	0.14	8.99	6.443
	5	0.17	0.03	0.14	8.92	6.417
	10	0.19	0.17	0.50	3.16	5.444
	15	0.23	0.18	0.73	2.46	5.282
	17	0.23	0.68	0.73	2.46	5.295
M2	5	0.17	0.12	0.18	1.49	6.423
	16	0.19	1.16	0.36	2.59	5.860
	25	0.24	2.68	0.68	3.77	4.828
	35	0.32	4.37	0.27	3.77	4.112
	46	0.49	4.97	0.26	4.10	3.977
	57	0.44	5.46	0.32	4.51	3.868
M3	5	0.23	0.26	0.18	1.15	
	15	0.25	1.77	0.50	1.99	5.665
	25	0.17	1.21	0.49	1.99	4.839
	35	0.15	1.11	0.41	2.02	4.815
	44	0.17	1.04	0.59	1.99	4.801
	54	0.15	1.05	0.54	1.92	4.812
	65	0.15	1.00	0.48	1.92	4.804
	75	0.19	1.16	0.50	1.95	4.787
	85	0.21	2.23	0.54	2.36	4.539
	97	0.70	11.00	0.22	5.26	3.353
	104	0.95	15.20	0.18	6.77	3.063
	115	0.97	15.50	0.19	6.74	3.019
M4	5	0.16	0.08	0.16	1.23	6.716
	10	0.16	0.19	0.19	1.23	6.382
	20	0.17	0.51	0.78	2.46	4.782
	40	0.14	0.60	0.62	2.32	4.811
	60	0.15	0.83	0.53	2.42	4.763
	80	0.17	1.15	0.59	2.42	4.733
	100	0.61	8.84	0.21	4.45	3.127
	120	0.77	11.80	0.21	5.78	3.142
	140	1.05	16.00	0.21	7.93	3.046
	160	1.34	19.10	0.21	9.46	2.934
	180	1.34	19.90	0.22	9.79	2.889
	196	1.30	20.20	0.23	10.10	2.928
D1	4	0.17	0.08	0.08	5.17	6.296
	5	0.49	0.24	0.24	5.14	6.292
	10	0.36	0.13	0.13	2.39	-----
	12	0.24	0.16	0.16	2.03	5.506
	15	0.44	0.18	0.18	1.91	5.496

4.1

STATION	DEPTH (m)	PO4	NO3	N02	SIO4	DIS. OXYGEN (mg/l)
D2	5	0.12	0.19	0.12	0.84	5.635
	15	0.12	0.22	0.12	0.77	5.627
	25	0.11	0.20	0.14	0.84	5.629
	35	0.14	0.22	0.19	1.06	5.403
	45	0.37	3.90	0.39	2.76	4.666
	55	0.69	9.87	0.34	5.53	3.677
D3	5	0.12	0.20	0.12	1.38	5.732
	11	0.12	0.20	0.12	1.31	5.706
	20	0.36	0.28	0.19	1.35	5.337
	30	0.35	1.45	0.40	2.15	5.008
	40	0.24	1.48	0.41	2.04	4.984
	50	0.23	1.76	0.44	2.04	4.995
	60	0.32	3.34	0.41	2.76	4.713
	71	0.76	11.90	0.21	5.89	3.442
	80	0.91	14.00	0.17	6.39	3.222
	86	0.91	14.40	0.17	6.43	3.173
D4	4	0.09	0.04	0.16	0.74	5.564
	11	0.13	0.20	0.16	0.82	5.550
	21	0.12	0.19	0.17	1.00	5.514
	41	0.14	0.48	0.26	1.00	5.216
	60	0.59	9.57	0.25	4.21	3.189
	78	0.70	11.90	0.22	4.87	3.093
	98	0.78	13.20	0.22	5.46	3.115
	120	0.87	14.30	0.22	6.29	3.047
	141	0.91	15.00	0.21	6.40	3.073
	160	0.99	16.00	0.21	7.17	3.100
	180	1.02	16.80	0.21	7.38	3.073
	204	1.05	16.90	0.22	7.89	3.098

CRUISE 1
NUTRIENT & HYDROGRAPHIC DATA

STATION	DEPTH (m)	PO4	NO3	NO2	SiO4	DIS. OXYGEN (mg/l)
C-1	16.8	0.18	0.20	0.05	4.30	7.738*
	7.7	0.44	1.40	0.13	7.00	8.718
	3.9	0.14	0.20	0.09	1.70	8.528
	1.7	0.18	0.20	0.08	1.70	8.799
C-2	46.0	0.31	0.70	0.09	13.20	4.699
	34.0	0.08	0.20	0.08	3.90	6.812
	25.0	0.19	0.20	0.10	5.00	6.315
	15.0	0.23	0.20	0.06	2.50	7.366
	2.5	0.27	0.20	0.07	3.00	7.450
C-3	102.0	0.33	8.10	0.07	5.40	4.618
	80.0	0.22	3.90	0.16	7.60	4.775
	61.0	0.11	0.20	0.09	2.40	6.088
	20.0	0.12	0.20	0.06	1.30	7.423
	2.0	0.20	0.20	0.06	2.30	7.771
C-4	186.0	0.87	13.70	0.08	7.00	4.819
	153.0					4.687
	103.0	0.28	0.20	0.17	8.20	4.807
	51.0	0.11	2.00	0.06	1.90	6.668
	25.0	0.10	0.10	0.08	1.10	6.953
	3.0	0.28	0.20	0.09	2.40	7.218
M-1	17.2	0.48	1.40	1.39	9.10	0.000
	12.7	0.24	0.30	0.07	3.20	8.569
	7.7	0.11	0.20	0.08	3.10	8.524
	4.0	0.20	0.10	0.04	3.00	8.618
	2.0	0.15	0.10	0.06	3.10	8.501
M-2	54.0	0.08	0.20	0.04	9.30	5.800
	39.5	0.07	0.10	0.04	6.00	6.769
	30.0	0.06	0.10	0.01	2.80	7.197
	20.0	0.11	0.10	0.03	3.10	7.469
	8.9	0.06	0.10	0.01	2.40	7.861
	2.0	0.09	0.10	0.02	2.30	7.421
M-3	121.0	0.10	10.10	0.01	6.80	4.632
	99.0	0.14	0.10	0.07	7.00	4.931
	74.0	0.17	0.20	0.09	7.80	5.470
	49.0	0.03	1.40	0.06	3.40	7.079
	25.0	0.04	0.10	0.02	2.70	7.324
	2.5	0.06	0.20	0.04	2.90	7.514
M-4	178.0	0.88	15.40	0.00	8.00	4.704
	130.5	0.22	5.50	0.05	8.70	4.578
	99.0					4.891
	51.0	0.11	0.10	0.04	3.20	7.703
	25.0					7.683
	2.0	0.03	0.10	0.00	2.20	7.215

STATION	DEPTH (m)	PO4	NO3	N02	SiO4	DIS. OXYGEN (mg/l)
D-1	17.5	0.15	0.10	0.12	5.50	7.772
	13.8	0.16	0.20	0.06	3.60	7.485
	10.8	0.30	0.10	0.06	3.60	7.138
	5.8	0.16	0.10	0.02	2.60	8.387
	2.5	0.15	0.20	0.04	2.60	7.787
D-2	49.0	0.10	5.80	0.33	5.60	5.915*
	39.0	0.12	0.50	0.28	4.70	6.807
	30.5	0.27	1.20	0.45	6.00	7.163
	20.6	0.11	0.20	0.00	3.30	7.961
	9.6	0.07	0.10	0.04	2.60	8.244
	2.5	0.15	0.20	0.02	2.10	8.217
D-3	80.0	0.57	9.40	0.07	5.30	5.478
	61.8	0.09	0.90	0.02	3.30	7.470
	41.4	0.11	0.20	0.08	2.50	7.462
	25.5	0.09	0.10	0.09	1.30	8.922
	10.0	0.61	0.10	0.04	1.50	7.323
	2.0	0.05	0.10	0.01	1.00	7.674
D-4	190.5	0.74	13.80	0.02	7.80	4.596
	150.0	0.11	13.30	0.01	6.60	5.255
	99.5	0.11	12.00	0.04	5.20	5.102
	49.3	0.10	0.10	0.00	1.10	7.767
	19.8	0.08	0.10	0.00	1.10	7.600
	2.0	0.09	0.10	0.00	0.70	7.219

* Possible sample contamination due to leaking seal on nisken bottle.

CRUISE 2
NUTRIENT & HYDROGRAPHIC DATA

STATION	DEPTH (m)	PO4	NO3	N02	SIO4	DIS. OXYGEN (mg/l)
C-1	21.0	0.79	7.4	0.72	13.3	5.081
	21.0	0.75	7.4	0.74	13.4	
	9.0	0.15	0.3	0.06	0.9	8.779
	3.0	0.15	0.3	0.06	1.0	8.858
C-2	50.5	0.94	12.7	0.11	7.4	5.586
	39.5	0.87	12.4	0.13	7.0	6.167
	30.0	0.77	9.9	0.08	6.4	6.359
	20.0	0.46	5.0	0.44	3.9	7.493
	9.6	1.14	17.3	0.06	9.4	9.746
	1.0	0.32	4.8	0.52	3.7	9.345
C-3		0.91	13.9	0.03	6.8	
		0.45	9.2	0.28	9.9	
C-4		0.18	0.9	0.63	1.3	
		0.17	0.8	0.66	1.4	
		0.57	12.8	0.34	12.2	
M-1	14.0	0.35	3.0	0.77	8.0	2.486*
	12.0	0.20	0.9	0.29	3.4	8.242
	8.0	0.16	0.5	0.16	2.3	9.892
	6.0	0.22	0.4	0.13	1.9	9.976
	3.0	0.13	0.4	0.13	1.9	9.607
M-2	50.0	0.59	7.4	0.19	6.1	5.284
	37.0	0.32	3.3	0.60	3.1	7.12
	25.5	0.19	0.7	0.16	0.8	8.735
	17.0	0.17	0.1	0.04	0.3	9.173
	4.0	0.17	1.3	0.23	1.0	9.807
M-3	120.0	0.59	7.3	0.26	5.7	6.425
	100.0	0.62	8.9	0.19	6.0	5.879
	85.0	0.60	8.9	0.12	5.9	5.801
	60.0	0.20	0.8	0.54	1.8	7.792
	31.0	0.30	1.5	0.72	1.7	7.557
	19.0	0.13	0.2	0.44	0.7	
	5.0	0.22	1.6	0.20	1.9	
	3.0	0.20	0.3	0.08	0.4	

STATION	DEPTH (m)	PO4	NO3	N02	SiO4	DIS. OXYGEN (mg/l)
M-4	182.0					4.621
	170.0	0.94	14.7	0.06	7.1	5.626
	150.0	0.74	11.0	0.07	5.3	6.218
	115.0	0.73	11.0	0.08	5.4	6.297
	92.0	0.24	1.3	0.57	2.2	7.728
	31.0	0.19	1.2	0.72	1.4	7.699
	21.5	0.29	4.6	0.49	3.5	
	6.2	0.15	0.7	0.19	0.3	8.628
	5.0	0.20	0.8	0.11	1.5	9.223
D-1	18.0	0.36	2.5	0.78	9.6	8.991
	14.0	0.34	2.2	0.77	8.9	7.227
	12.0	0.09	0.1	0.09	4.7	9.575
	5.0	0.08	0.2	0.04	5.3	9.701
	2.5	0.09	0.0	0.04	5.4	9.736
D-2	53.0	0.28	1.6	0.68	3.2	7.776
	44.0	0.18	0.3	0.35	1.8	9.618
	33.0	0.12	0.0	0.00	1.0	9.378
	24.0	0.13	0.0	0.01	1.0	9.628
	2.0	1.24	17.4	0.11	1.5	8.511
D-3	85.5	1.24	17.4	0.11	10.9	4.893
	69.7	0.44	5.9	0.05	4.9	6.371*
	49.7	0.42	5.2	0.10	7.4	6.518
	34.9	0.30	2.4	0.80	6.4	6.672
	21.5	0.13	0.3	0.17	1.5	8.217*
	4.0	0.15	0.0	0.03	1.3	8.649
D-4	213.0	1.78	26.2	0.04	15.5	4.633
	213.0	1.78	25.8	0.00	15.2	
	150.0	1.67	25.0	0.04	14.1	4.288
	100.0	0.97	14.3	0.05	7.9	5.188*
	49.0	0.22	2.5	0.55	1.6	7.51
	4.0	0.18	0.0	0.02	0.6	8.664

* Possible sample contamination due to leaking seal on nisken bottle.

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CRUISE 3
NUTRIENT & HYDROGRAPHIC DATA

STATION	DEPTH (m)	PO4-P (µM/kg)	NO3 (µM/kg)	NO2 (µM/kg)	SiO4 (µM/kg)	DIS. OXYGEN (mg/l)
C-1	1	0.15	0.09	0.01	3.91	7.577
	5	0.03	0.07	0.02	0.65	7.768
	10	0.07	0.08	0.02	1.11	7.395
	15	0.64	0.64	0.04	30.60	7.991
	18	0.16	0.16	0.13	4.79	7.000
C-2	1	0.26	0.06	0.04	2.45	8.068
	8	0.25	0.01	0.04	3.55	7.890
	14	0.44	0.50	1.60	5.60	7.079
	20	0.22	0.10	0.15	7.90	7.649
	26	0.16	0.15	0.36	3.80	7.178
	33	0.37	4.30	0.69	6.20	6.396
C-3	2	0.12	0.07	0.01	0.72	7.932
	20	0.09	0.18	0.20	1.99	7.598
	70	0.40	8.57	0.04	3.31	5.592
	90	0.66	12.45	0.03	4.93	5.035
	114	0.84	14.20	0.10	6.85	4.778
C-4	1	0.37	0.02	0.04	0.87	8.990
	50	0.26	6.28	0.09	3.94	6.193
	100	0.48	11.40	0.05	4.44	
	200	1.15	19.90	0.05	9.60	5.722
	240	1.26	21.20	0.04	11.30	4.644
	275	1.73	26.70	0.07	16.50	4.837
M-1	1	0.23	0.07	0.05	6.29	7.362
	7	0.33	0.10	0.05	3.01	8.294
	15	0.08	0.05	0.06	3.20	7.348
	15	0.25	0.07	0.06	3.53	6.846
	20	0.75	0.58	0.39	22.75	5.374
	20	0.36	0.29	0.37	13.00	5.882
M-2B	2	0.14	0.04	0.00	1.53	7.723
	15	0.17	0.08	0.01	2.24	8.348
	25	0.04	0.04	0.05	1.11	8.700
	35	0.02	0.04	0.00	1.07	7.927
	48	0.08	0.18	0.16	1.40	7.828
	56	0.50	3.49	0.57	4.78	6.129

STATION	DEPTH (m)	PO4-P (µM/kg)	NO3 (µM/kg)	NO2 (µM/kg)	SI04 (µM/kg)	DIS. OXYGEN (mg/l)
M-3	1	0.13	0.11	0.01	1.17	7.558
	25	0.23	1.30	0.25	2.38	7.757
	50	0.09	0.13	0.06	0.89	8.694
	75	0.24	5.21	0.08	2.28	6.147
	100	0.56	11.60	0.05	4.23	3.863
	118	0.70	11.55	0.11	6.78	6.002
M-4	1	0.14	0.10	0.01	2.80	7.835
	40	0.12	0.11	0.02	2.52	9.678
	80	0.13	2.63	0.10	1.77	7.244
	120	0.81	12.30	0.03	6.89	5.908
	150	0.87	15.10	0.05	7.12	5.537
	180	1.16	17.85	0.08	8.68	5.691
D-1	1	0.25	0.15	0.20	7.05	7.436
	7	0.27	4.49	0.07	3.13	7.467
	14	0.10	0.02	0.04	3.70	8.350
	19	0.13	0.03	0.07	2.65	6.051
D-2	1	0.14	0.06	0.06	2.78	7.612
	15	0.18	0.14	0.03	0.40	8.151
	25	0.20	0.14	0.10	4.41	7.445
	35	0.40	6.06	0.11	5.59	5.591
	54	0.49	8.48	0.14	4.26	5.891
	54	0.37	7.46	0.13	3.76	6.436
D-3	1	0.08	0.06	0.04	2.28	7.846
	20	0.18	0.10	0.04	3.03	7.421
	35	0.06	0.08	0.04	2.25	8.115
	50	0.15	1.47	0.36	2.50	6.652
	65	0.40	5.85	0.12	6.13	6.058
	77	0.44	8.51	0.10	4.38	5.299
D-4	1	0.26	0.14	0.01	1.33	8.527
	45	0.27	1.35	1.17	5.24	6.434
	75	0.49	9.04	0.06	4.30	5.909
	125	0.95	15.45	0.02	8.38	4.989
	175	1.30	21.15	0.08	11.45	4.404
	203	1.49	25.10	0.01	14.05	4.255
S-6	1	0.06	0.09	0.03	1.11	7.619
	15	0.12	0.07	0.03	4.99	7.335
	34	0.45	5.56	0.37	6.11	5.172
S-7	2	0.02	0.05	0.04	1.63	7.430
	20	0.12	0.23	0.15	4.14	6.643
	34	0.01	0.03	0.01	0.07	4.241

STATION	DEPTH (m)	PO4-P (μM/kg)	NO3 (μM/kg)	NO2 (μM/kg)	SI04 (μM/kg)	DIS. OXYGEN (mg/l)
S-8	1					7.469
	30					9.090
	56					6.849
C	1					7.542
	150					5.404
	313					5.327

CRUISE 4
NUTRIENT & HYDROGRAPHIC DATA

STATION	DEPTH (m)	PO4	NO3	N02	SiO4	DIS. OXYGEN (mg/l)
III		0.02	0.20	0.01	0.32	
III		0.02	0.20	0.01	0.31	
II		0.01	0.20	0.01	0.31	
I		0.02	0.20	0.01	0.32	
5W		0.02	0.20	-0.00	1.50	
C-1	16	0.06	0.05	0.05	3.10	7.739
	8	0.03	0.07	0.03	1.20	8.250
	2	0.02	0.08	0.02	1.20	8.626
C-2	51	0.08	1.68	0.59	1.50	7.467
	40	0.17	1.27	0.21	2.20	8.147
	30	0.08	0.26	0.04	0.90	8.890
	20	0.11	0.23	0.07	0.60	8.212
	10	0.06	0.30	0.09	1.20	8.651
	1	0.14	1.85	0.22	7.10	9.310
C-3	118	0.73	12.40	0.08	7.10	4.849
	94	0.53	10.90	0.05	5.90	5.567
	69	0.14	3.40	0.05	2.20	7.375
	39	0.16	0.28	0.02	2.50	8.122
	15	0.00	0.28	0.02	1.90	8.203
	2	0.08	0.28	0.02	3.40	8.026
C-4	282	1.26	20.30	0.05	10.20	4.828
	240	1.03	19.20	0.06	10.80	4.270
	201	0.50	10.30	0.08	0.90	4.666
	137	0.66	13.70	0.04	6.20	5.311
	96	0.55	10.70	0.04	5.90	
	59	0.19	0.79	0.20	2.80	9.619
	25	0.11	0.26	0.04	0.30	
	3	0.12	0.31	0.08	2.80	7.882
M-1	16	0.19	0.18	0.02	2.80	8.283
	9	0.25	0.28	0.02	13.00	8.299
	2	0.30	0.27	0.03	8.70	8.617
M-2	57	0.22	0.18	0.02	9.60	7.941
	50	0.19	0.18	0.02	7.10	7.753
	40	0.05	0.16	0.04	1.90	8.064
	25	0.67	0.10	0.00	3.20	8.286
	15					8.308
	2	0.11	0.10	0.00	2.60	9.654
G III		1.98	30.80	1.12	35.20	
III		0.02	0.20	0.01	0.30	
III		0.02	0.20	0.01	0.28	
II		0.01	0.20	0.01	0.28	
I		0.02	0.20	0.01	0.29	
SW		0.02	0.19	0.01	1.40	

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STATION	DEPTH (m)	PO4	NO3	N02	SiO4	DIS. OXYGEN (mg/l)
M-3	108	0.39	2.78	0.08	1.70	5.301
	80	0.08	1.46	0.12	3.70	7.632
	60	0.16	0.35	0.24	2.00	7.868
	40	0.17	1.34	0.24	6.60	7.186
	20	0.12	0.15	0.05	7.50	8.297
	3	0.14	1.26	0.12	0.00	8.462
M-4	170					4.984
	130	0.67	7.38	0.11	3.40	5.445
	90	0.58	2.81	0.15	2.00	5.690
	50	0.16	0.49	0.20	6.30	7.520
	25	0.20	2.03	0.14	1.10	7.617
	3	0.05	0.18	0.02	5.70	7.998
1	35	0.23	0.06	0.04	9.20	
2	30	0.25	0.16	0.04	8.90	
3	23	0.22	0.18	0.02	8.60	
4	16	0.16	0.18	0.02	7.70	
5	9	0.12	0.26	0.04	7.50	
6	2	0.28	0.31	0.08	8.60	
G III		1.97	30.70	1.17	33.20	
D-1	17	0.09	0.18	0.02	2.80	8.237
	9	0.05	0.20	0.00	1.50	8.283
	2	0.24	0.16	0.04	1.90	8.823
G III		1.98	30.50	1.14	31.20	
III		0.02	0.19	0.01	0.30	
III		0.02	0.19	0.01	0.31	
II		0.01	0.20	0.01	0.29	
I		0.02	0.20	0.01	0.31	
SW		0.05	0.18	0.02	1.50	
D-2	52	0.33	2.70	0.06	8.70	7.024
	40	0.25	1.35	0.03	8.30	7.496
	30	0.19	0.28	0.02	8.00	7.827
	20	0.00	0.24	0.06	5.30	7.813
	10	0.31	0.26	0.04	7.70	8.156
	2	0.16	0.25	0.05	0.00	8.051
D-3	80					7.932
	65	0.08	0.19	0.01	6.80	8.346
	45	0.00	0.20	0.00	0.60	8.288
	30					7.836
	15	0.08	0.12	0.08	1.50	8.417
	2	0.16	-0.05	0.25	7.70	8.218
D-4	217	1.90	23.80	0.08	21.00	4.217
	180					4.653
	130					4.320
	80	0.50	3.48	0.07	1.50	5.588
	30	0.24	0.47	0.02	3.40	9.045

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STATION	DEPTH (m)	PO4	NO3	NO2	SiO4	DIS. OXYGEN (mg/l)
	2	0.00	0.18	0.02	2.20	8.130
S-8	35					7.212
	30					7.232
	23					7.884
	16					8.337
	9					8.536
	2					8.184

Appendix D

SAMPLING AND LOGISTICS

Summary of Activities

Cruise Detail ROV1 and ROV2

4-4

Cruise Detail ROV1 - Summary of Activities

Date	Site	Site Type	ROV	Rock Dredge	Smith-Mac	Fishing
7/19	-	Edge of Boulder Field		RD1		
7/20	29°26.61'N 87°41.78'W	Boulder Field		RD2 (lost)		X
	29°30.50'N 87°39.95'W	ROV-1 Pox Field	X		SM1, SM2	X
	29°31.78'N 87°27.98'W	ROV-2 Mod. Feature	X	RD3	SM3	X
7/21	29°32.12'N 87°28.97'W	ROV-3 Wave Field	X		SM4	
	29°33.29'N 87°29.19'W				SM5	
	29°33.17'N 87°29.23'W		RD4			
	29°33.48'N 87°29.60'W	ROV-4 Shoreline	X	RD5, RD6		X
	29°27.86'N 87°39.29'W	ROV-5 Shorline	X		SM6	
7/22	29°26.63'N 87°41.15'W	ROV-6 Boulder Field	X		SM7	X
	29°25.33'N 87°54.68'W	ROV-7 Shoreline	X	RD7, RD8	SM8	
	29°24.66'N 87°57.17'W	Between ROV-7 & 8			SM9	
	29°24.12'N 87°58.94'W	ROV-8 Mod. Feature	X			
	29°23.89'N 87°58.88'W	near ROV-8			SM10	
	29°23.77'N 87°59.07'W	Reef Top?			SM11, SM12	
	29°23.88'N	Sedim. Apron			SM13	

	87°59.54'W	W of ROV-8			
	29°23.14'N	Boulder Field	RD9, RD10	SM14	
	88°00.01'W				
7/23	29°24.57'N	Shoreline		SM15	X
	87°44.85'W				
	29°24.56'N	Shoreline	RD11		
	87°44.38'W				
	29°23.58'N	Footprints	RD12	4 SM failures	
	87°39.45'W				
	29°24.21'N	Snake Ridge		SM16	
	87°35.37'W				
	29°24.17'N	SnakeRidge	RD13		
	87°35.41'W	(N of dropoff)			
	29°23.91'N	Snake Ridge	RD14		
	87°35.47'W	(upslope)			
	29°23.89'N	94 fm Pox	RD15	SM failed	
	87°32.42'W	Field			
	29°26.38'N	31 fm Fishing			X
	87°35.53'W	Grounds			

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Cruise Detail ROV2 - Summary of Activities

Date	Site	Site Type	ROV	Rock Dredge	Smith-Mac	Light
9/23	29°24.02'N	ROV-8	XX*			
	87°59.07'W	Mod. Feature				
	29°23.35'N	ROV-9	X			
	88°00.06'W	Boulders ca.				
		ROV-8				
9/24	29°24.59'N	ROV-10	X			
	87°44.84'W	Shoreline/				
		Ragged Bot.				
	29°23.45'N	ROV-11	X			
	87°39.63'W	"Footprints"				
	29°24.40'N	ROV-12	X			
	87°35.83'W	"Snake Ridge"				
	29°26.29'N	ROV-13	X	RD1	23	X
	87°34.51'W	40fm Fishing				
		Grounds (Reef				
		Top)				
9/25	"	"	XX			
		(Side of Reef)				
9/26	29°26.20'N	ROV-14	X			
	87°37.07'W	40fm Fishing				
		Grounds				
	29°33.53'N	ROV-15	X			
	87°33.28'W	Mod. Feature				
	29°27.69'N	ROV-16	X			
	87°46.72'W	Mod. Feature				
	29°26.70'N	ROV-17	XX			
	87°41.10'W	Boulder Field				
	29°26.38'N	ROV-13		RD2		
	87°34.52'W	40fm Fishing				
		Grounds				

9/27	29°19.94'N	ROV-18	X
	87°46.37'W	Pinnacles	
	29°26.55'N	ROV-17	X
	87°40.86'W	Boulder Field	

*XX indicates that two areas were surveyed at the site by paying out more anchor chain in order to move the ship up to 100 meters down current.

Station Information and Inventory of Samples Collected

Cruises 1 and 2

Station information and inventory of samples collected on Cruises 88-MMS-ROV-1 and 88-MMS-ROV-2.

Station: 1 Site: Pox Field Lat. 29°30.5'N Long. 87°39.95'W

ROV dives: 1

Dive no.	Date	Total 3/4" video tapes	Total 1/2" video tapes
1	7/20/88	2	2

Total stereo frames: none

Dredge samples: none

Grab samples: 2

ID no.	Date
1	7/20/88
2	7/20/88

Station: 2 Site: Low Topographic Features Lat. 29°31.78'N Long. 87°27.98'W

ROV dives: 1

Dive no.	Date	Total 3/4" video tapes	Total 1/2" video tapes
2	7/20/88	2	2

Total stereo frames: 36

Dredge samples: 1

ID no.	Date
3	7/20/88

Grab samples: 1

ID no.	Date
3	7/20/88

Station: 3 Site: Wave Field Lat. 29°32.12'N Long. 87°28.97'W

ROV dives: 1

Dive no.	Date	Total 3/4" video tapes	Total 1/2" video tapes
3	7/20/88	2	1

Total stereo frames: 41

Dredge samples: none

Grab samples: 1

ID no.	Date
4	7/21/88

Station: 4 Site: Shoreline / Ragged bottom Lat. 29°33.48'N Long. 87°29.6'W

ROV dives: 1

Dive no.	Date	Total 3/4" video tapes	Total 1/2" video tapes
4	7/21/88	2	1

Total stereo frames: none

Dredge samples: 3

ID no.	Date
4	7/21/88
5	7/21/88
6	7/21/88

Grab samples: 1

ID no.	Date
5	7/21/88

Station: 5 Site: Shoreline / N of patch reef field Lat. 29°27.86'N. Long. 87°39.29'W

ROV dives: 1

Dive no.	Date	Total 3/4" video tapes	Total 1/2" video tapes
5	7/21/88	2	1

Total stereo frames: 51

Dredge samples: none

Grab samples: 1

ID no.	Date
6	7/21/88

Station: 6 Site: Patch Reefs Lat. 29°26.63'N Long. 87°41.15'W

ROV dives: 3

Dive no.	Date	Total 3/4" video tapes	Total 1/2" video tapes
6	7/22/88	2	1
19	9/26/88	1	1
21	9/27/88	2	1

Total stereo frames: 116

Stereo frames mounted for voucher: 13

ID no.	Habitat	Subjects
03192020	coarse depression	Depression, comatulid A
07192030	reef top	Astrophyton (two forms), white sponge, Oculina sp., Thesea, Cirrhipathes, Comatulid A, Nicella, Rhizopsammia
11210856	reef face	Rhizopsammia, ?Oculina, Holanthias martinicensis, Elisella barbadensis
38210956	reef overhang	Oculina, ?Oxysmilia, "bushy antipatharian", Holanthias martinicensis, Paracyathus pulchellus?

40210958	reef overhang	Rhizopsammia, ?Madrepora, ?Oculina, "bushy antipatharian", Astrophyton
50211018	reef overhang	Madrepora carolina, Oculina
53211022	reef face	Rhizopsammia, Elisella barbadensis, white encrusting sponge
60211044	fine flat	Hermit crab
61211045	reef face	Madrepora, Oculina, Rhizopsammia
66211047	water column	Chaetodon ocellatus
68211048	reef top	"fish", "branched white gorgonian", Astrophyton, Cirrhipathes
84211103	reef overhang	Holanthias martinicensis, ?Oculina, Rhizopsammia, "fish", Ellisella sp., paracyathus pulchellus?
85211104	reef overhang	?Oculina, Rhizopsammia, Paracyathus pulchellus?

Dredge samples: none

Grab samples: 1

ID no.	Date
7	7/22/88

Station: 7 Site: Shoreline / west Lat. 29°25.33'N Long. 87°54.68'W

ROV dives: 1

Dive no.	Date	Total 3/4" video tapes	Total 1/2" video tapes
7	7/22/88	3	2

Total stereo frames: 3

Dredge samples: 2

ID no.	Date
7	7/22/88
8	7/22/88

Grab samples: 1

ID no.	Date
8	7/22/88

Station: 8   Site: West Reefs   Lat. 29°24.02'N Long. 87°59.04'W

ROV dives: 2

Dive no.	Date	Total 3/4" video tapes	Total 1/2" video tapes
8	7/22/88	2	0
9	9/23/88	3	2

Total stereo frames: 47

Stereo frames mounted for voucher: 22

ID no.	Habitat	Subjects
04091332	reef flat	Comactinia echinoptera, dense ground cover, Nicella guadalupensis
05090332	reef flat	Astrophyton, Comactinia echinoptera, dense ground cover, sea fans, orange gorgonian with white edges
07091333	reef flat	Pristigenys alta, Comactinia echinoptera, orange gorgonian with white edges, dense ground cover
09091335	reef flat	Nicella, 6 Astrophyton, orange gorgonian with white edges, C. echinoptera, dense ground cover
11091336	reef top	Antipathes sp., Rhizopsammia
14091339	reef top	Rhizopsammia, C. echinoptera, Comatulid B, H. martinicensis, Gymnothorax moringa, sea star
15091340	reef top	H. martinicensis, Hemanthias aureorubens, Rhizopsammia, Comatulid E, Anthipathes sp., reef fish, Astrophyton?, E. barbadensis
16091341	reef face	Rhizopsammia, Cirrhipathes, E. barbadensis, H. martinicensis, C. echinoptera
18091342	coarse flat	comatulid A, Antipathes sp., Berbryce cinerea?, Stylocidaris affinis
19091344	reef flat	C. echinoptera, orange gorgonian w/ white edges, Antipathes sp.
20091345	reef flat	Nicella?, Cirrhipathes, Antipathes sp., hermit crabv
21091345	reef flat	Orange gorgonian w/ white edges, dense ground cover, Comatulidae, Elisella sp.
22091346	reef flat	Comactinia echinoptera, dense ground cover
24091349	reef face	Orange sponge?, Oculina sp., Rhizopsammia, Stylocidaris affinis, Scorpaenidae, Paracyathus pulchellus?
25091350	reef face	E. barbadensis, Rhizopsammia, Diadema antillarum, C. echinoptera, Antipathes sp., reef fish
27091351	reef face	Rhizopsammia, Stylocidaris affinis, reef fish, Cirrhipathes?, sparse cover
28091352	reef face	2 Scorpaenidae, H. martinicensis, reef fish, Rhizopsammia

36091404	reef face	E. elongata, Rhizopsammia, Oculina sp., Antipathes A, Liopropoma eukrines
38091405	reef face	Pale globose sponge, Diadema antillarum?, Rhizopsammia, E. barbadensis, C. echinoptera, S. affinis, Oculina sp., Antipathes sp.
39091405	reef face	Similar to 38
40091406	reef face	Antipathes sp., Oxysmilia? sp., Astrophyton, coralline algae?, Oculina sp., Rhizopsammia
41091411	reef face	same as 40, but with reef fish

Dredge samples: none

Grab samples: 2

ID no.	Date
11	7/21/88
12	7/22/88

Station: 9 Site: West Patch Reef Field Lat. 29°23.35'N Long. 88°00.06'W

ROV dives: 1

Dive no.	Date	Total 3/4" video tapes	Total 1/2" video tapes
10	9/23/88	2	1

Total stereo frames: 40

Stereo frames mounted for voucher: 10

ID no.	Habitat	Subjects
18102150	reef face	Interm. sized solitary white (pink) corals, E. elongata, Rhizopsammia, Madrepora, Astrophyton, Paramuricidae, H. martinicensis
20102154	water col.	1 ?Loligo
33102229	reef face	abund. Rhizopsammia manuelensis, few Paracyathus pulchellus?, Astrophyton
34102230	reef top	Nicella guadalupensis, white unid. gorgonian
39102233	reef top	1 Calamus nodosus, Paracyathus pulchellus?, Thesea?, Bebryce cinerea?
43102237	reef top	Paramuricidae, pink gorgonian, Decapterus punctatus
52102246	coarse botttom	Large Ommastrephidae, shell hash
56102251	rock outcrop	Elisella barbadensis, Thesea?, Rhizopsammia manuelensis, Nicella guadalupensis, Madrepora, orange solitary coral, Haemulon sp.

60102255	reef face	Nicella guadalupensis, Rhizopsammia manuelensis, pink gorgonian, Holanthias martinicensis, E. elongata, Madrepora? or Oculina?
64102259	reef face	4 Trachurus or Decapterus, Bebryce?, pink gorgonian, E. barbadensis, silt

Dredge samples: 2

ID no.	Date
9	7/22/88
10	7/22/88

Grab samples: 1

ID no.	Date
14	7/22/88

Station: 10 Site: Shoreline / Ragged Bottom Lat. 29°24.59'N Long. 87°44.84'W

ROV dives: 1

Dive no.	Date	Total 3/4" video tapes	Total 1/2" video tapes
11	9/24/88	2	1

Total stereo frames: 31

Stereo frames mounted for voucher: 7

ID no.	Habitat	Subjects
10100522	reef face	Madrepora carolina, Thesea?, Nicella guadalupensis, Rhizopsammia manuelensis, Astrophyton, white encrusting sponge
23100537	reef top	Oculina sp., Rhizopsammia, Thesea?, orange encrusting sponge, E. elongata?
24100538	reef top	Cirrhipathes, Rhizopsammia manuelensis
29100548	reef top	Silt, Elisella barbadensis, Antipathes sp., Nicella guadalupensis, yellow encrusting sponge
32100552	reef top	Astrophyton, Rhizopsammia, Oculina sp., Elisella barbadensis, Nicella guadalupensis, Comactinia echinoptera
39100603	reef face	Madrepora, Nicella guadalupensis, Thesea?, Rhizopsammia, yellow encrusting sponge, Antipathes sp. A
46100655	rock outcrop	Priacanthus arenatus?

Dredge samples: 1

ID no.	Date
11	7/23/88

Grab samples: 1

ID no.	Date
15	7/23/88

Station: 11 Site: Footprints Lat. 29°23.45'N Long. 87°39.63'W

ROV dives: 1

Dive no.	Date	Total 3/4" video tapes	Total 1/2" video tapes
12	9/24/88	1	1

Total stereo frames: none

Dredge samples: 1

ID no.	Date
12	7/23/88

Grab samples: none

Station: 12 Site: Snake Ridge Lat. 29°24.40'N Long. 87°34.82'W

ROV dives: 1

Dive no.	Date	Total 3/4" video tapes	Total 1/2" video tapes
13	9/24/88	1	1

Total stereo frames: 32

Stereo frames mounted for voucher: 4

ID no.	Habitat	Subjects
20121415	rubble depression	2 Pristigenys alta, rubble, Nicella guadalupensis, Paracyathus pulchellus?, fine flat in background
23121419	fine flat	Calamus bajonado, trail on bottom, Pectinidae (shell), some rubble almost buried

26121424	fine flat	2 Nicella guadalupensis and one white gorgonian
33121430	fine flat	Calamus bajonado

Dredge samples: 2

ID no.	Date
13	7/23/88
14	7/23/88

Grab samples: 1

ID no.	Date
16	7/23/88

Station: 13 Site: 40 Fathom Fishing Grounds / East Lat. 29°26.29'N Long. 87°34.51'W

ROV dives: 2

Dive no.	Date	Total 3/4" video tapes	Total 1/2" video tapes
14	9/24/88	2	1
15	9/25/88	2	2

Total stereo frames: 126

Stereo frames mounted for voucher: 18

ID no.	Habitat	Subjects
06142047	reef flat	Elisella barbadensis, "yellow sponge A", "round sponge", Thesea, Nicella guadalupensis
07142048	reef flat	Thesea, "yellow sponge A", Nicella guadalupensis, "serranid A", coralline algae, H. martinicensis
08142049		slide on loan to J. Brooks and MMS
09142049	reef flat	Thesea, E. barbadensis, Comactinia echinoptera, "yellow sponge A", H. martinicensis, "serranid A", "comatulid B", Nicella, white fan
10142049	reef flat	comatulid B, Nicella guadalupensis, white fan, coralline algae?, reef fish (juv. H. martinicensis?, with "saddle")
12142050	reef flat	Thesea, "round sponge", "yellow sponge A", Nicella guadalupensis, "serranid A", white fan, pencil urchin, crinoids
13142051	reef face	Nicella guadalupensis, "round sponge", Bebryce cinerea?, E. barbadensis, coralline algae, border between sand flat and reef flat
14142051	reef flat	"round sponge", Thesea, Scorpaenidae, Diplectrum sp. coralline algae, holothuroid, striped grunt

15142052	fine flat	Asteroidea, Scorpaenidae, Thesea?
16142053	fine flat	Holanthias martinicensis, Thesea?, E. barbadensis, encrusting sponges, coralline algae, border between sand flat and reef flat
17142053		1/2 of slide on loan to Brooks
20142055	reef flat	Comactinia echinoptera, "comatulid B", Nicella guadalupensis, Holanthias martinicensis, Thesea, white fan, white globose sponge
23142059	reef flat	Coralline algae, Elisella barbedensis, E. elongata, Thesea?, Nicella guadalupensis, Bebryce?
29142104	reef flat	P. alta, C. echinoptera, comatulid B, "comatulid G", coralline algae, Elisella, Nicella, purple sponge, vase sponge, bryozoan mound
30152020	reef flat	Lactophrys polygonia (this is the specimen shot for the range extension paper)
31142104	reef flat	"bowl sponge A", comatulid D, coralline algae, N. guadalupensis, Thesea?, candelabra sponge, Hemanthias aureorubens
40152134	reef flat	Opsanus beta, Pristigenys alta, Nicella guadalupensis, Thesea, Comactinia echinoptera, "comatulid B"
65152248	reef flat	Holanthias martinicensis (tail visible), Lutjanidae?, Comactinia echinoptera, "comatulid C", Elisella, Rhizopsammia, Madrepora

Dredge samples: 2

ID no.	Date
16	7/25/88
17	7/26/88

Grab samples: 1

ID no.	Date
17	7/25/88

Station: 14 Site: 40 Fathom Fishing Grounds / West Lat. 29°26.20'N Long. 87°37.28'W

ROV dives: 1

Dive no.	Date	Total 3/4" video tapes	Total 1/2" video tapes
16	9/26/88	2	1

Total stereo frames: 92

Stereo frames mounted for voucher: 24

ID no.	Habitat	Subjects
09160429	reef flat	Seriola dumerili, Gorgonacea, Astrophyton, Comactinia echinoptera
10160431	reef flat	Comactinia echinoptera, white Gornonacea, Antipathes, large orange gorg. with white edges, Cirrhipathes, Nicella
11160431	reef flat	1/2 mounted, comatulid D, Elisella barbadensis, Holanthias martinicensis, coralline algae, white gorgs., Thesea?, Antipathes
12160432	reef flat	White gorgonacea, Large orange gorgonian w/ white edges
14160434	reef flat	Sponge (white encrusting), Thesea?, Nicella, Cirrhipathes, Antipathes, comatulid C, comatulid B
15160435	reef flat	Antipathes sp., Thesea, Comactinia echinoptera
16160435	reef flat	Antipathes A, Antipathes B, Astrophyton, large yellow gorg., Nicella, Comactinia echinoptera, Cirrhipathes, Paramuricidae
17160436	reef flat	Large yellow sea fan, Seriola dumerili (6), Antipathes, Comactinia echinoptera, pencil urchin
18160436	reef flat	Astrophyton, large orange gorg. with white edges, Comactinia echinoptera, reef fish, Cirrhipathes, Thesea
19160437	reef flat	Large orange gorg. with white edges, Astrophyton, Large orange gorgonian, white sea fan, C. echinoptera, Paramuricidae, Thesea
20160438	reef flat	White branching sponge, C. echinoptera, comatulid B, comatulid D, Antipathes, white gorg., Cirripathes, reef fish with "saddle"
21160438	reef flat	branching white sponge, Comactinia echinoptera, comatulid B, Cirrhipathes, large orange gorg. with white edges, white fan
25160442	reef face	Cirrhipathes, comatulids, Antipathes
37160453	reef base	Sciaenidae, yellow encrusting sponge, E. barbadensis, comatulid B, Thesea, depauperate cover, fine silt
40160455	reef base	depauperate reef base, Liopropoma eukrines?
42160458	reef base	Oculina or Madrepora, depauperate cover
43160459	reef base	long-spined sea urchin, encrusting sponge, comatulid E, Antipathes sp. B
49160502	reef face	Octocoral w/ blue polyps, Thesea, Nicella, Rhizopsammia, C. echinoptera, comatulid B, Antipathes B, Cirrhipathes, Holanthias
58160512	reef flat	tubular sponge with single oscula, P. alta, Nicella, Thesea, comatulid B, Elisella, Astrophyton, white gorgonians
59160512	reef flat	Seriola dumerili, Acanthostracion quadricornis (scrawled cowfish), large orange gorg. with white edges, Astrophyton

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66160519	reef flat	Scorpaenidae, Serranus tabacarius?, Seriola dumerili, white gorgonian, Antipathes A, comatulid B, E. elongata, Thesea?
76160529	reef flat	pink gorgonian, Seriola dumerili, Antipathes A, Thesea, Comactinia echinoptera, comatulid B, large orange gorg. with white edges
90160540	reef face	Oculina sp., Rhizopsammia, yellow encrusting sponge, comatulid B, Antipathes sp. A
92160543	reef face	green encrusting sponge, Oculina?, Antipathes sp. A, orange sea star, Rhizopsammia,

Dredge samples: none **Grab samples:** none

Station: 15 Site: Moderate Feature / east Lat. 29°33.53'N Long. 87°33.28'W

ROV dives: 1

Dive no.	Date	Total 3/4" video tapes	Total 1/2" video tapes
17	9/26/88	2	1

Total stereo frames: 2

Stereo frames mounted for voucher: 2

ID no.	Habitat	Subjects
15170900	rubble depression	1/2 mounted, pink gorgonians, debris? in depression
16170901	rubble depression	Same as photo 15, clam shells, rock beneath surface, pink gorgonians, Comactinia echinoptera?

Dredge samples: none **Grab samples:** none

Station: 16 Site: Moderate Feature / west Lat. 29°27.69'N Long. 87°46.72'W

ROV dives: 1

Dive no.	Date	Total 3/4" video tapes	Total 1/2" video tapes
18	9/26/88	2	1

Total stereo frames: 41

Stereo frames mounted for voucher: 8

ID no.	Habitat	Subjects
20181527	coarse mound	Thesea, "round sponge", "orange sponge A", pink gorgonians, dense "ground cover", silt
23181531	fine flat	"white sponge A", Thesea?, pink gorgonian, Cirrhipathes sp.
26181537	rocky outcrop	"round sponge", "orange sponge A", pink gorgonians, silt
36181549	reef face	Diplectrum sp., Elisella barbadensis,Antipathes sp. A?, orange vase sponge, (transition between the reef face and the reef base)
40181551	rubble mound	"yellow sponge B", Elisella barbadensis, large orange gorg. with white edges
41181553	fine mound	"white vase sponge B", large orange gorg. with white edges, Elisella?
43181554	rubble mound	branched bryozoan?, pink gorgonian
51181608	fine flat	sandy mound, Diplectrum sp.

Dredge samples: none **Grab samples:** none

Station: 18 Site: Pinnacles Lat. 29°19.94'N Long. 87°46.37'W

ROV dives: 1

Dive no.	Date	Total 3/4" video tapes	Total 1/2" video tapes
20	9/27/88	2	1

Total stereo frames: 72

Stereo frames mounted for voucher: 54

ID no.	Habitat	Subjects
05200322	reef top	Rhomboplites aurorubens?, Ophichthus ?gomesi, Nicella, Elisella, comatulid F, Rhizopsammia, Madrepora, Siphonogorgia
06200322	reef face	Ophichthus ?gomesi, Rhizopsammia, Nicella guadalupensis, Elisella barbedensis
07200323	reef face	Siphonogorgia, Nicella guadalupensis, Madrepora, Rhizopsammia, Paracyathus pulchellus?

08200324	reef overhang	Siphonogorgia, Rhizopsammia, Madrepora, "comatulid D", "white colonial coral", Nicella, Oculina sp., Paracyathus?, Stylocidaris
09200324	reef face	R. aurorubens, Siphonogorgia, Nicella, Astrophyton, comatulid F, C. echinoptera, Stylocidaris, H. martinicensis, Oculina?...
10200325	reef overhang	Rhizopsammia, Siphonogorgia, Nicella guadalupensis, Madrepora, Oculina sp.
11200327	reef top	Madrepora, Nicella, Rhizopsammia, Siphonogorgia, comatulid F
12200333	reef face	Nicella, Rhizopsammia, Stylocidaris affinis, Madrepora, Siphonogorgia, Paracyathus pulchellus?
13200334	reef top	Nicella, Rhizopsammia, E. elongata, Madrepora, Paracyathus pulchellus?, Siphonogorgia, orange topped mushroom coral
14200335	reef face	Siphonogorgia, Elisella barbadensis, Holanthias martinicensis, Rhizopsammia, Nicella guadalupensis
15200336	reef face	Stylocidaris affinis, Thesea, Astrophyton, "comatulid F", C. echinoptera, "white colonial coral", Siphonogorgia, Madrepora
16200337	reef face	Thesea, Astrophyton, "comatulid C", Madrepora "white colonial coral", Diadema antillarum, Neopycnodonte cochlear
17200338	reef top	Rhizopsammia, Madrepora, Astrophyton, "comatulid F", Scolymia?, Siphonogorgia, Thesea?, Holanthias martinicensis
18200339	reef top	comatulid F, Astrophyton, Rhizopsammia, Madrepora, colonial white coral, Siphonogorgia (edge of reef)
19200343	reef top	Neopycnodonte, Madrepora, Siphonogorgia, Thesea, D. antillarum, Rhizopsammia, Paracyathus?, yellow fan, comatulid F...
20200345	reef overhang	Rhizopsammia, Madrepora, "white colonial coral", Holanthias martinicensis, Oculina sp., Thesea, Nicella, Astrophyton
21200346	reef face	Rhizopsammia, Siphonogorgia, Nicella guadalupensis, "thick spined urchin", Madrepora, Comactinia echinoptera
22200346	reef top	"comatulid F", C. echinoptera, Rhizopsammia, Siphonogorgia, Madrepora, Thesea, Stylocidaris affinis, Paracyathus pulchellus?
24200350	reef face	Rhizopsammia, "comatulid F", Madrepora, Siphonogorgia
25200350	reef face	Rhizopsammia, Madrepora, "comatulid F", "white colonial coral", Thesea, H. martinicensis, "long spine urchin" (2), Oculina sp.
26200351	reef overhang	"white colonial coral", Thesea, Madrepora, Rhizopsammia
27200352	reef top	Madrepora, Rhizopsammia, Thesea, "long spine urchin", Oculina sp., pink gorgonian, Oxysmilia? sp.
28200352	reef top	Madrepora, Rhizopsammia
30200355	reef flat	"white branched gorgonian", Thesea, Rhizopsammia, Astrophyton, Nicella guadalupensis
31200356	reef flat	Rhizopsammia, Madrepora, Nicella guadalupensis, E. barbadensis, Astrophyton, Thesea, Oculina, Siphonogorgia, Neopycnodonte

32200357	reef top	Rhizopsammia, E. barbadensis, Madrepora, Nicella guadalupensis, Siphonogorgia, H. martinicensis, white topped mushroom coral
33200401	reef overhang	Thesea, Rhizopsammia, "comatulid F", Astrophyton, Madrepora, white colonial coral
34200402	reef top	yellow gorgonian, Nicella guadalupensis, Astrophyton, Thesea, Oxysmilia? sp.
35200403	reef face	Rhizopsammia, Thesea, Holanthias martinicensis, Oculina, white solitary corals, Siphonogorgia, shrimp
36200403	reef face	crab, Rhizopsammia, Neopycnodonte cochlear, Madrepora
37200404	reef face	Rhizopsammia, Siphonogorgia, white colonial coral" (few large polyps), Nicella, Madrepora, Neopycnodonte cochlear
38200405	reef face	Neopycnodonte cochlear, "white colonial coral" (few large polyps), Rhizopsammia, Siphonogorgia, Madrepora
39200406	reef face	Madrepora, Rhizopsammia, H. martinicensis, Siphonogorgia, "comatulid F", "white colonial coral", Paracyathus pulchellus?
40200408	reef face	"white colonial coral" (small polyps), Madrepora, Rhizopsammia, Thesea, C. echinoptera, comatulid F, Oculina, Stylocidaris
43200412	reef face	Rhizopsammia, Siphonogorgia, Nicella, Neopycnodonte, Stylocidaris, H. martinicensis, orange mushroom coral, Rochinia?, Oxysmilia?
44200422	reef face	Siphonogorgia, "long spine urchin", Rhizopsammia, Madrepora, "thick spined urchin", Paracyathus pulchellus?
45200422	reef face	Rhizopsammia, Madrepora, Siphonogorgia, Thesea, Paracyathus?
46200424	reef top	Rhizopsammia, Madrepora, ?Oculina, "white colonial coral", Astrophyton, yellow fan, C. echinoptera, comatulid C, comatulid F
47200426	reef top	"gorgonian" (large white fan), Astrophyton
48200427	reef flat	"white branched gorgonian", Astrophyton, Rhizopsammia, Neopycnodonte cochlear
49200430	reef top	Nicella guadalupensis, Rhizopsammia, Antipathes sp. A, Madrepora, white Elisella, orange topped mushroom coral
50200430	reef overhang	E. barbadensis, comatulid F, Rhizopsammia, Astrophyton, ?Oculina, Nicella guadalupensis, white colonial coral, Neopycnodonte?
51200431	reef face	Siphonogorgia, Neopycnodonte cochlear, H. martinicensis, Rhizopsammia, Madrepora, solitary white topped mushroom coral
52200431	reef face	Madrepora, Rhizopsammia, Siphonogorgia, Thesea, Astrophyton, comatulid F, pink gorgonian, Oculina, Nicella
53200432	reef top	Rhizopsammia, Oculina, white colonial coral, Siphonogorgia, C. echinoptera, Madrepora, ?Scolymia, Astrophyton, Neopycnodonte
54200433	reef face	Rhizopsammia, ?Scolymia, Thesea, Astrophyton, ?Madrepora, Siphonogorgia
55200435	reef face	Rhizopsammia, Siphonogorgia, "white branched gorgonian", Astrophyton, H. martinicensis, Thesea, Madrepora, D. antillarum...

59200440	reef face	Madrepora, comatulid F, Rhizopsammia, Holanthias martinicensis, "long spine urchin", ?Oculina, Siphonogorgia, Thesea
61200441	reef top	Rhizopsammia, Madrepora, Oculina, Stylocidaris, "white solitary coral" (mid-size polyps), Chaetodon aya, Nicella, Siphonogorgia
62200441	reef overhang	Oculina, Madrepora, Rhizopsammia, Eucidaris, Siphonogorgia agassizii, orange topped mushroom coral
69200447	reef top	Rhizopsammia, Nicella guadalupensis, Madrepora, Siphonogorgia, comatulid F, orange topped mushroom coral
70200450	reef top	Madrepora, Rhizopsammia, comatulid F, Thesea, Siphonogorgia, Nicella guadalupensis, encrusting bryozoan?, H. martinicensis
71200450	reef face	Madrepora, Rhizopsammia, Nicella, Siphonogorgia, Oxysmilia? sp.
72200503	reef top	white colonial coral (small polyps), Thesea, Madrepora, Nicella, Rhizopsammia, comatulid F, Astrophyton

Dredge samples: none

Grab samples: none

Station: 19 Site: Between Sta. 7 & Sta. 8 Lat. 29°24.66'N Long. 87°57.17'W

ROV dives: none

Total stereo frames: none

Dredge samples: none

Grab samples: 1

ID no.	Date
9	7/22/88

Station: 20 Site: Near Sta. 8 Lat. 29°23.89'N Long. 87°58.88'W

ROV dives: none

Total stereo frames: none

Dredge samples: none

Grab samples: 1

ID no.	Date
10	7/22/88

Station: 21 Site: Sediment Apron Lat. 29°23.88'N Long. 87°59.54'W

ROV dives: none

Total stereo frames: none

Dredge samples: none

Grab samples: 1

ID no.	Date
13	7/22/88

Station: 22 Site: 94 Fathom Pox Field Lat. 29°23.89'N Long. 87°32.42'W

ROV dives: none

Total stereo frames: none

Dredge samples: 1

ID no.	Date
15	7/23/88

Grab samples: none

Station: 23 North Side of Boulder Field Lat. 29°27.12'N Long. 87°40.44'W

ROV dives: none

Total stereo frames: none

Dredge samples: 1

ID no.	Date
1	7/19/88

Grab samples: none

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END

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